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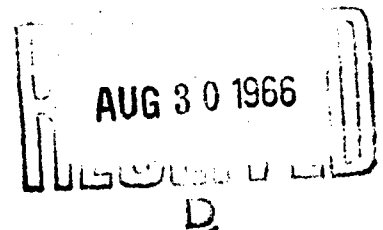
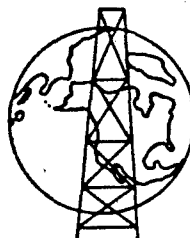
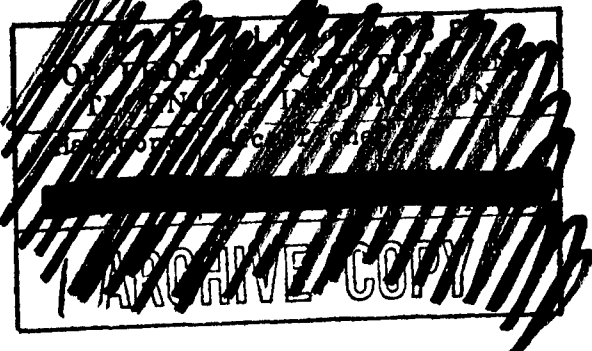
AN ANALYSIS OF CARBON DIOXIDE IN THE
ARCTIC ATMOSPHERE AT BARROW, ALASKA
DURING 1961-1962-1963

REPORT NO. 2

by

JOHN J. KELLEY, JR.

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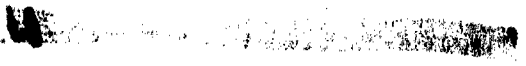


JULY 1966

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13. ABSTRACT

The results of the measurements of carbon dioxide in air at Barrow, Alaska are presented. Reference gas comparison data are tabulated, and the methods of calculations are discussed. The average daily concentrations of atmospheric carbon dioxide are tabulated for the period 10 July 1961 to 2 October 1963. The diurnal variations of carbon dioxide during this period are also presented. Results of the analysis of carbon dioxide in air, collected in flasks from several locations in addition to Barrow, are given.

14. KEY WORDS

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A

ABSTRACT

The results of the measurements of carbon dioxide in air at Barrow, Alaska are presented. Reference gas comparison data are tabulated, and the methods of calculations are discussed. The average daily concentrations of atmospheric carbon dioxide are tabulated for the period 10 July 1961 to 2 October 1963. The diurnal variations of carbon dioxide during this period are also presented. Results of the analysis of carbon dioxide in air, collected in flasks from several locations in addition to Barrow, are given.

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PREFACE

This report presents a summary of measurements of the concentration of carbon dioxide gas in specially prepared mixtures of nitrogen gas used in the analysis of carbon dioxide at Barrow, Alaska. The report follows the general format used by The Scripps Institution of Oceanography [Keeling, 1965].

This work was supported under a contract from the Office of Naval Research [ONR 477(24)] with the Department of Atmospheric Sciences, University of Washington. The analytic program was conducted cooperatively with Dr. C. D. Keeling's (The Scripps Institution of Oceanography, La Jolla, California) atmospheric carbon dioxide program at Mauna Loa, Hawaii, and the South Pole Station, Antarctica.

The carbon dioxide program at Barrow was initiated and maintained from July 1961 to August 1962 by Mr. John J. Kelley, Jr. Operation of the carbon dioxide analyzer was continued by Mr. John Unger from September 1962 to March 1963, and from April 1963 to October 1963 by Mr. Leander Stroschein.

The Director of the Arctic Research Laboratory, Dr. M. C. Brewer and his staff, have provided invaluable assistance to the project.

I. INTRODUCTION

This report presents the results of a program to measure the concentration of carbon dioxide in the atmosphere at Barrow, Alaska from July 1961 through October 1963. Daily average values of the concentration of CO₂ in the surface air are computed from data derived from original strip chart records of a continuous recording infrared gas analyzer installed at the station. All relevant data and computations for the years 1961 through 1963 are contained in this report. The experimental method is described in a Technical Report by Kelley [1964]. Interpretation of the data will be published in a scientific journal. A provisional version of reference gas calibration data for 1961 through 1963 appears in the Technical Report by Kelley [1964].

All data in this report are final values. The procedure for computation follows that used at The Scripps Institution of Oceanography, LaJolla, California as described in Research Reports I through VIII*.

* Copies of these reports may be obtained from Dr. Charles D. Keeling,
S. I. O. LaJolla, California

II. REFERENCE GAS COMPARISONS - TABLE 1

This table lists, in chronological order, both the observed scale differences which were used to calibrate the gas analyzer, and their conversion into index values proportional to CO_2 concentration. The calibrations of the analyzer consisted of repeated comparisons of pairs of specially prepared gas mixtures of CO_2 in nitrogen obtained from The Scripps Institution of Oceanography. These reference gas mixtures were stored in size 7A stainless steel cylinders called "tanks."

Under normal operating conditions ten comparisons were obtained by alternately passing one gas of the pair, and then the other, through the infrared analyzer for five minutes at the same flow rate employed in the air measurements (normally 0.5 liters per minute). As soon as one series of ten comparisons was run, one or both tanks were replaced and another pair of tanks compared. This process was repeated, as a rule, three times during the life of a "working reference" tank: at the beginning of use, when the gas pressure was half depleted, and at 400 p.s.i., before return of the cylinder to Scripps for final calibration. The scale difference between two successive traces, in recorder chart ordinates, was read with a straight-edge scale (30 divisions to the inch) by drawing parallel straight lines through each of the traces belonging to the reference gases. The succession of individual scale differences for each tank pair was entered on data sheets, an example of which is shown in Figure 1. The calibrations described served to establish the recorder sensitivity of the infrared gas analyzer. They

were also used to determine the index values of reference gases known as "working references," used in connection with air measurements.

The general method used by The Scripps Institution for tank standardization (Figure 2) was modified somewhat at Barrow during the period covered by this report. Initially, two reference gases were compared with air every 30 minutes. After modifying the automatic operation of the analyzer, three reference gases were employed. Two of the reference gases were used as comparison standards. The third reference gas was ranked as a "working reference" and compared with air every 30 minutes. The "working reference" was compared directly to the comparison standards, primary and stan (high or low), in the absence of a suitable secondary reference at Barrow.

In Table 1, tanks related to each calibration run are identified by tank numbers (permanently stamped into the metal). They are listed in column 1 and 2. Column 1 lists the number of the standard tank; column 2 lists the number of the tank with which it is compared. The average observed scale difference for each tank pair is listed in column 3. A positive number indicates that the compared tank, for that particular comparison, has a higher scale reading, and consequently a higher CO_2 concentration than the standard; a negative number indicates the reverse. The number of comparisons (not always 10) which entered into each average scale difference is listed in column 4.

The recorder sensitivity, determined by comparisons of the primary and secondary standards, is expressed by a "recorder scale factor" listed in column 5. The computed index differences, each with the same

sign as the corresponding scale difference, and the index value of the compared tank, in terms of a prescribed or "assigned" value of the standard tank, are listed in columns 6 and 7.

Weighted average recorder scale factors, column 5, are copied from column 7 of table 2. Index differences, column 6, were computed by the formula given in Section III-D.

The computed index values, column 7, are the algebraic sums of the index values of the standard tanks listed in column 1 and the index differences of column 6. The index values of the standard tanks are those listed in column 8 of Table 7. In the case of primary tanks, designated I_0 and I_{LS} in column 1 of Table 7, they depend solely on the measurements made at Scripps. The weighted index values of these tanks are given in column 12 of Table 9.

The data listed in Table 1 are for the period 6 January 1962 to 21 August 1963. Data for the period 10 July 1961 to 5 January 1962 are omitted from this report because the mutual comparison method of reference tank calibration had not been in use. During this time two reference tanks were compared with each other at various times during every day. Recorder scale factors were determined from single set comparisons. These data are presented in Table 3.

The scale differences entered in column 3 of Table 1 are copied from the original entries on the Reference Gas Data Sheets, Fig. 1. The date of analysis is listed in column 8.

III. RECORDER SCALE FACTORS - TABLE 2

A. Definition

The recorder scale factor, RSF, is defined as the index difference between two reference gases divided by the number of scale divisions (30 div. to the inch) between the recorder chart traces for each reference recorded in units. Ten divisions on the scale were equal to one unit. The index of a reference gas tank is defined as a provisional CO₂ concentration in ppm based on the initial analysis of the tank.

B. Standard Computation for Three Mutually Compared Tanks

Columns 1 through 4, except values with asterisks explained below, and the last entry in column 4 for each calibration day, list selected data copied directly from the corresponding columns of Table 1. These data are employed, as shown below, to obtain daily RSF's.

The following format has been adopted from the Scripps (S10 Reports 1-8) scheme for tank standardizations, where the standard tank index values have been assigned the symbols A and B, and the compared tank, without such assignment, the symbol X:

| <u>Standard Tank No.</u> | <u>Compared Tank No.</u> | <u>Observed Scale Difference</u> | <u>No. of Comparisons</u> |
|--------------------------|--------------------------|----------------------------------|---------------------------|
| A | X | [X] - [A] | a |
| B | X | [X] - [B] | b |
| A | B | [Y]* | (a or b)* |

$$[Y] = ([X] - [A]) - ([X] - [B]) = ([B] - [A])$$

The asterisk on [Y] indicates the calculated value, and the brackets indicate index values. The number of comparisons assigned to [Y] is "a" or "b", whichever is smaller. The observed scale differences were taken from the averages of the individual chart scale differences (Figure 1).

The observed comparisons and calculated values of any group of three tanks, A, B, and X are set off in Table 2 by boxes.

C. Determination of Index Differences

Index differences shown in Table 2, column 5, were obtained from index values of the standard tanks as follows:

| <u>Tank Numbers</u> | <u>Index Values</u> | <u>Difference</u> |
|---------------------|---------------------|-------------------|
| 10063 vs 6074 | 310.44 - 298.99 | 11.45 |
| 10063 vs 4291 | -310.44 + 335.21 | 24.77 |
| 10053 vs 7351 | 310.44 - 273.22 | 37.22 |
| 10063 vs 4283 | -310.44 + 343.02 | 32.58 |

The index values of separate tanks are obtained from Column 12 of Table 9.

D. Weighted Average Recorder Scale Factors

Column 6 presents RSF's computed according to the definition given in section III-A. Column 7 presents the weighted average values of the recorder scale factors for each calibration day. The index differences

in Column 6 of Table 1 are computed by the formula:

$$\begin{array}{l} \text{Computed} \\ \text{Index} \\ \text{Difference} \end{array} = (\text{Observed Scale Difference})(\text{Weighted Average RSF})$$

IV. SUMMARY OF RECORDER SCALE FACTORS - TABLES 3, 4, 5

Values of RSF's are assembled in chronological order in column 4 of Table 4. Table 5 presents a list of sliding RSF's derived for each day from 1 November 1962 to 31 December 1962. These are adjusted to 30.000 inches of mercury.

Column 7 of Table 3 and column 6 of Table 4 show the result of adjusting the RSF's of column 5 and 4 of Tables 3 and 4 to a standard barometric pressure of 30.000 inches of mercury at Barrow. The following formula was used:

$$\begin{array}{l} \text{Adjusted} \\ \text{Recorder Scale} = \\ \text{Factor} \end{array} = \frac{(\text{Weighted Average RSF}) \times 30.000 \text{ inches of Hg}}{\text{Observed barometric pressure during test (inches of Hg)}}$$

The data are divided into fifteen periods. The periods are separated according to breaks in continuity of the recorder scale

factors; a graph of the data from Period 1 through Period 11 is shown in Figure 3. During these periods, breaks in continuity were extreme due to the development of a method for determining a standard operating method for infrared analysis at Barrow. Each break is characterized by a change in the span control on the infrared analyzer. Therefore, discrete periods of relatively constant recorder scale factors are created between span changes.

During periods 13, 14 and 15, a constant recorder span setting was used and a mutual comparison method of tank standardization was set up. These data are shown in Figures 4 and 5. A discontinuity existed between 1 November 1962 and 31 December 1962. This was defined as period 14 and Table 5 was produced from this period by drawing a line between the end point of the average RSF curve for Period 13 to the starting point of the average RSF curve for Period 15. Daily RSF's were derived from this curve in Period 14 and defined as sliding recorder scale factors.

V. INDEX VALUES OF WORKING REFERENCE GASES - TABLE 6

This table presents index values based on measurements at Barrow, Alaska for "working reference tanks" (i.e., those tanks compared with air) in use during 1961, 1962, and 1963. The entries in columns 1, 2, 3, 4 and 9 have been copied from columns 1, 2, 4, 7 and 8 of Table 1. Column 8 of Table 6 gives the tank pressure at which the analysis was made. All of the comparisons were made with either the primary or low-span reference gases, numbers 10063 or 7351. Weighted average index values are listed in column 6.

VI. COMBINED SCRIPPS AND BARROW INDEX VALUES

OF WORKING REFERENCE GASES - TABLE 7

This table summarizes the index values of all reference gases used at Barrow during 1961, 1962, and 1963. The weighted average index from 1 July 1961 to 1 August 1961 was determined from Scripps tank comparisons alone. No mutual tank comparison data were available for Barrow at that time. The reference tank to which each of the working reference tanks were compared at Barrow is designated by the symbols I_o or I_{LS} . I_o identifies the primary tank and I_{LS} identifies the low span.

Entries in columns 2 and 3 are the numbers of comparisons and weighted average index values based on measurements at Scripps prior to use. They are copied from Scripps Research Reports II through VII.

Entries in columns 4 and 5 are numbers of comparisons and weighted average index values based on measurements at Barrow. They are copied from columns 5 and 6 of Table 6.

Entries in columns 6, 7 and 8 are based on measurements at Scripps after use. They are found in Scripps Research Reports II through VIII.

Entries in columns 9 and 10 list the total number of comparisons and weighted average index values based on all measurements at Scripps and at Barrow, except as indicated in footnotes.

VII. COMPARISON OF SCRIPPS AND BARROW INDEX VALUES
OF WORKING REFERENCE GASES - TABLE 8

This table presents the results of all analyses of Barrow reference tanks used in the daily comparison with air. The table compares the results of the analyses made at the Scripps Institution of Oceanography with those made at Barrow. The total number of comparisons and indices shown in columns 2 and 3 are taken from columns 2, 3, 6 and 7 of Table 7. The number of comparisons and reference tank indices in columns 4 and 5 of Table 8 are copied from column 4 and 5 of Table 7. Entries in column 6 are the differences between index values in parts per million CO₂ obtained from measurements at Barrow and Scripps, and represent the index departure from Scripps values. These data are plotted in Figure 6.

VIII. SCRIPPS INDEX VALUES OF PRINCIPAL
REFERENCE GASES - TABLE 9

This table presents a summary of the index determination of all principal reference gases before and after use at Barrow. Column 1 indicates tank rank. The symbols are:

| | |
|-----------------|----------------|
| I | Primary tank |
| II | Secondary tank |
| I _{HS} | High Span |
| I _{LS} | Low Span |

Columns 3 and 4 present the initial number of runs and index values before shipment of the tank to Barrow. This information may be found in the Scripps Reports, whose numbers are listed in column 6. Column 7 and 8 list the number of runs and index value of the same tank determined at Scripps after use at Barrow. These values are to be found in the Scripps report listed in column 10.

Entries in columns 11 and 12 give the total number of comparisons and index value for principal reference gases. These values are final values and are used in determining the recorder scale factor.

Column 13 lists the time intervals that these tanks were in use at Barrow.

IX. INDEX VALUES OF AIR WITH CONTINUOUS
ANALYZER - TABLE 10

Computation of Index Values

This table contains all daily CO₂ values at Barrow for 1961 through 1963. Column 1 lists the calendar date of the comparison with air. Column 2 shows the observed daily average scale difference between the air trace and the working reference gas trace. Column 3 lists the total number of comparisons for the day. A full day consists of forty-eight half-hour comparisons. Column 4 records the average barometric pressure for the day. These values were obtained from the original Carbon Dioxide Daily Data Sheets. The observed scale difference in column 2 was adjusted to a standard barometric pressure of 30.000 inches of mercury

by the formula:

$$\begin{array}{l} \text{Adjusted} \\ \text{Scale} \\ \text{Difference} \end{array} = \begin{array}{l} \text{Observed} \\ \text{Scale} \\ \text{Difference} \end{array} \times \frac{30.000 \text{ inches of Hg}}{\text{Average pressure for the day (inches of Hg)}}$$

and this adjusted scale difference is recorded in column 5.

Column 6 lists the RSF's to be used in converting scale differences to index units. These are based on values listed in Tables 3, 4 and 5 which have been adjusted to standard atmospheric pressure.

The computed index difference in column 7 is obtained by:

$$\begin{array}{l} \text{Computed} \\ \text{Index} \\ \text{Difference} \end{array} = \text{RSF} \times \text{Adjusted Scale Difference}$$

The working reference tank used in the comparison with air is listed in column 8, its index in column 9. These data are taken from Table 7. For the period 10 July to 18 September 1961 the index values are found in column 8. For all air data from 19 September 1961 to 2 October 1963 working reference tank indices are to be found in column 10 of Table 7.

The daily average air index values in column 10 are the algebraic sums of entries in columns 7 and 9.

In several instances reference tank changes were made during the day. In these cases the daily index was computed by first computing an air index for all of the observations with one tank in use, and doing the same for the data taken with the replacement tank. These data are reported separately in column 10. The daily index is taken as the average of the two separate index values.

B. Manometric Concentration Scale

Throughout this report, the CO₂ data have been reported in terms of an index scale. It was established provisionally at Scripps in 1959 that the true concentration in parts per million by volume is related to the index scale by:

$$\text{Manometric Concentration} = (C - 311.51) 1.2186 + 311.51$$

where C is the index value.

This equation is based on the absolute calibration of primary and span reference gases by means of a mercury manometer. It is possible that future manometric calibrations may result in further adjustment of the index scale. The intercept value (311.51) is believed to be correct within 1 ppm; the slope value (1.2186) within 0.001. This well-determined value of the slope means that no significant error exists in comparing different concentrations in the range of 300 to 320 ppm.

This equation has been used to report atmospheric CO₂ concentrations

by Keeling [1960], Bolin and Keeling [1963], Kelley [1964], Pales and Keeling [1965], and Brown and Keeling [1965].

Column 11 lists the manometric concentration of the index values reported in column 10 in ppm CO₂ by volume dry air. The data are shown graphically in Figure 7.

X. MONTHLY SUMMARY OF AIR DATA - TABLE 12

This table presents the monthly average concentration (manometric) of CO₂ in the atmosphere at Barrow, Alaska, from July 1961 to September 1963.

Columns 2, 5, and 8 list the number of days for which air index values are quoted in Table 10. Columns 3, 6, and 9 list the monthly manometric indices in ppm CO₂ for index values quoted in columns 3, 6, and 9 of Table 11.

The averages of the monthly values for each year are given in columns 3, 6, and 9.

XI. CONCENTRATIONS OF AIR REFERRED TO A CONSTANT DATUM - TABLE 13

This table lists monthly average concentrations from Table 12 referred to a datum of January 1960 on the assumption that the concentration of CO₂ in the atmosphere over Barrow increased at the rate of

0.06 ppm per month. The period of observation at Barrow was too short to establish such a rate with certainty. However, the 0.06 ppm per month rate of increase of CO₂ was accepted, based on the observations at Mauna Loa Pales and Keeling, [1965] and, in the Antarctic by Brown and Keeling [1965].

Composite averages appear in column 5. Column 6 lists the departure of these averages from the annual mean value of 314.76 ppm.

XII. TWELVE MONTH RUNNING MEAN CONCENTRATION
OF CARBON DIOXIDE - TABLE 14

A twelve-month running mean concentration of CO₂ is presented in columns 2 and 3 from data in Table 12.

XIII. THE DIURNAL VARIATION OF CO₂ - TABLE 15

The diurnal variation of CO₂ was calculated from the half-hourly observations recorded on the original Carbon Dioxide Data Sheets. The diurnal variations are based on hourly air indices by finding the average index for each hour of the day for each month, as shown graphically in Figure 8.

XIV. INDICES AND MANOMETRIC CONCENTRATIONS OF
FLASK SAMPLES - TABLES 16, 17, 18, 19

During the course of analysis of air at Barrow, Alaska, with the infrared analyzer, samples of air were collected periodically in evacuated 18-liter glass flasks and sent to The Scripps Laboratory for analysis. These samples were taken primarily to check the continuous analyzer against an independent set of data.

Information in columns 1, 2, 3 and 4 is taken directly from the original Flask Sampling Sheets logged at Barrow by the operator of the CO₂ program. Entries in columns 5, 6, 7, and 8 of Table 17 and 19 and 5, 6, 7, 8, and 9 of Tables 16 and 18 are copied from Flask Sample Laboratory Data Sheets.

Column 4 of Table 16 lists the place (first two letters) where the flasks were opened. The observer at the time of the flask sampling is indicated by the second two letters.

LOG OF SYMBOLS

Locations

PB = Point Barrow
AR = Arlis I, II
T3 = T-3
BT = Bettles
AN = Anaktuvuk
UM = Umiat
NA = Natchik

Observers

| | |
|--------------------|----------------|
| RS = R. Sommerfeld | JK = J. Kelley |
| BM = B. Mendenhall | CC = C. Cooke |
| RR = R. Roulette | AH = A. Hanson |
| LS = L. Stroschein | PD = P. Dix |
| BL = B. Lieske | PW = P. Witt |
| RS = R. Shaver | RP = R. Priebe |
| DB = D. Bailey | JU = J. Unger |
| HP = H. Peyton | |

During 1962, evacuated flask pairs were opened at various Alaskan locations listed in column 8 of Tables 17 and 19 and column 9 of Table 18. Aircraft flights were made to each of these locations and the samples were taken at 10,000 feet above the ground surface.

The range entered in column 7 is the concentration difference between flask pairs. The data are presented in Table 17.

Flask pairs were opened at various heights over Barrow, Alaska, during 1962 and 1963. The data are reported in Table 18.

During August and September 1962, flask samples of air were collected from the Arctic Research Laboratory research vessel NATCHIK at several locations along the coast of the Arctic Ocean, Chukchi, and Bering Seas. The concentration data are presented in Table 19.

Figure 10 presents a map illustrating the various flask sampling locations and cruise course of the NATCHIK.

XV. INDICES AND MANOMETRIC CONCENTRATIONS OF AIR
FOR TIMES OF FLASK SAMPLING - TABLE 20

This table presents CO₂ concentrations in air as measured by the infrared analyzer at times when air samples were collected in glass flasks as reported in Table 16.

Columns 1 and 2 show the date and time when the flask samples were collected. Entries in columns 3, 4, 5, 6, 7, 8, 9, 10, and 11 correspond

respectively to entries in columns 2, 4, 5, 6, 7, 8, 9, 10, and 11 of Table 10 and were obtained in the same manner except that columns 3, 4, 5, 7, 10, and 11 are average values which apply to a thirty to sixty minute period near the time when the flask sample was taken, rather than daily values.

XVI. COMPARISON OF CONTINUOUS ANALYZER
AND FLASK SAMPLES - TABLE 21

This table compares the concentration of individual flask samples collected at Barrow, Alaska, with the average concentration observed by the continuous infrared analyzer near the time of collection. Manometric concentrations are used.

Flask concentrations copied from column 7 of Table 16 are listed in column 3. Analyzer concentrations copied from column 11 of Table 20 are listed in column 4. Differences (analyzer minus flask concentration) are listed in column 5.

Figure 11 shows the departure of the IR analyzer CO₂ concentrations from flask sample concentrations.

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DATE April 20, 1963

POINT BARROW, ALASKA

ONR 477/24

| Tank No. | 7351 | 7362 | 10063 | 7362 | 7351 | 10063 | 7351 | 7362 | 10063 | 7351 |
|----------------|--------|------|-------|------|--------|-------|--------|---|-------|------|
| Scale Diff. 1 | 17.37 | | 2.15 | | 15.02 | | 15.02 | 1800 | 1020 | 1500 |
| 2 | 17.28 | | 2.21 | | 14.98 | | 14.98 | 0.5 | | |
| 3 | 17.22 | | 2.19 | | 15.01 | | 15.01 | 527/442/548 | | |
| 4 | 17.23 | | 2.19 | | 15.06 | | 15.06 | 594 | | |
| 5 | 17.22 | | 2.06 | | 15.07 | | 15.07 | 1200 | | |
| 6 | 17.18 | | 2.14 | | 15.12 | | 15.12 | 1730 | | |
| 7 | 17.24 | | 2.10 | | 15.06 | | 15.06 | -55 | | |
| 8 | 17.13 | | 2.10 | | 15.06 | | 15.06 | Freezer Defrosted (hours ago): 5 | | |
| 9 | 17.28 | | 2.14 | | 15.05 | | 15.05 | Scale Used on Chart: 30 div/inch (=3.0 units) | | |
| 10 | 17.29 | | 2.13 | | 15.00 | | 15.00 | | | |
| | | | | | | | | | | |
| | 172.44 | | 21.41 | | 150.43 | | 150.43 | | | |
| Av. Scale Diff | 17.24 | | 2.14 | | 15.04 | | 15.04 | | | |

FIG. 1: Sample Data Sheet for Computing Reference Gas Index Values and Recorder Scale Factors

I = PRIMARY TANK
 II = SECONDARY TANK

l_{hs} = HIGH SPAN

l_{ls} = LOW SPAN

$W_1, 2 \dots n$ = WORKING TANKS

l_{ls} INSTEAD OF l_{hs} WHEN
 NECESSARY

$W_1 \dots W_n$ INSTEAD OF II
 WHEN NECESSARY

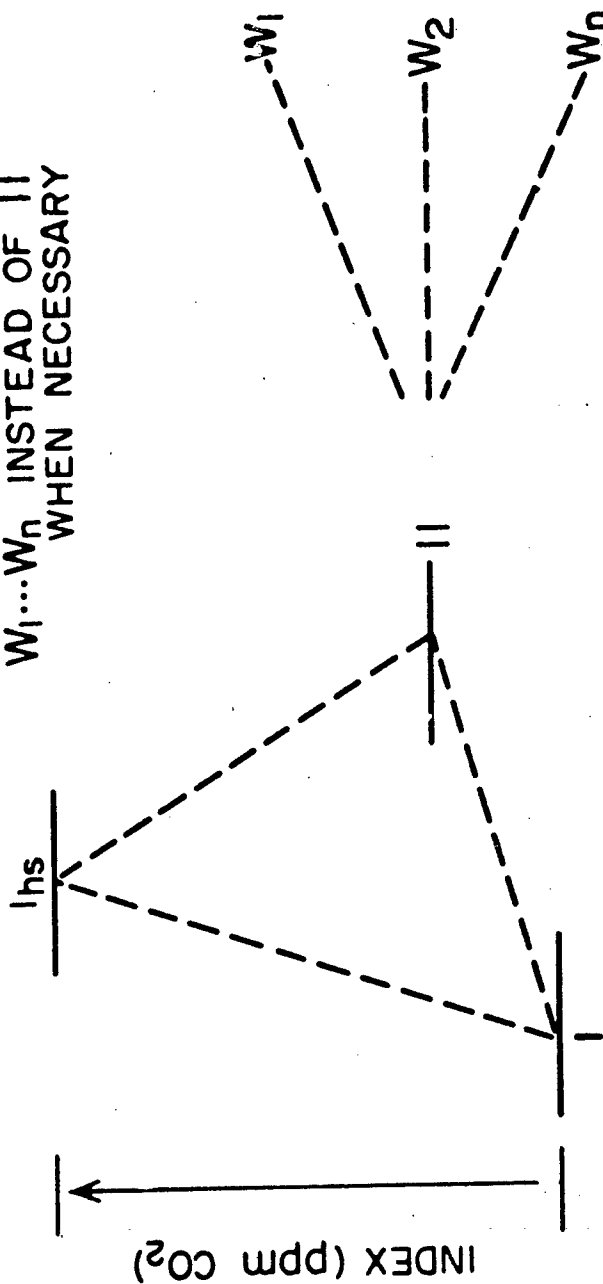


FIG. 2: Mutual Comparison Method for Tank Standardization

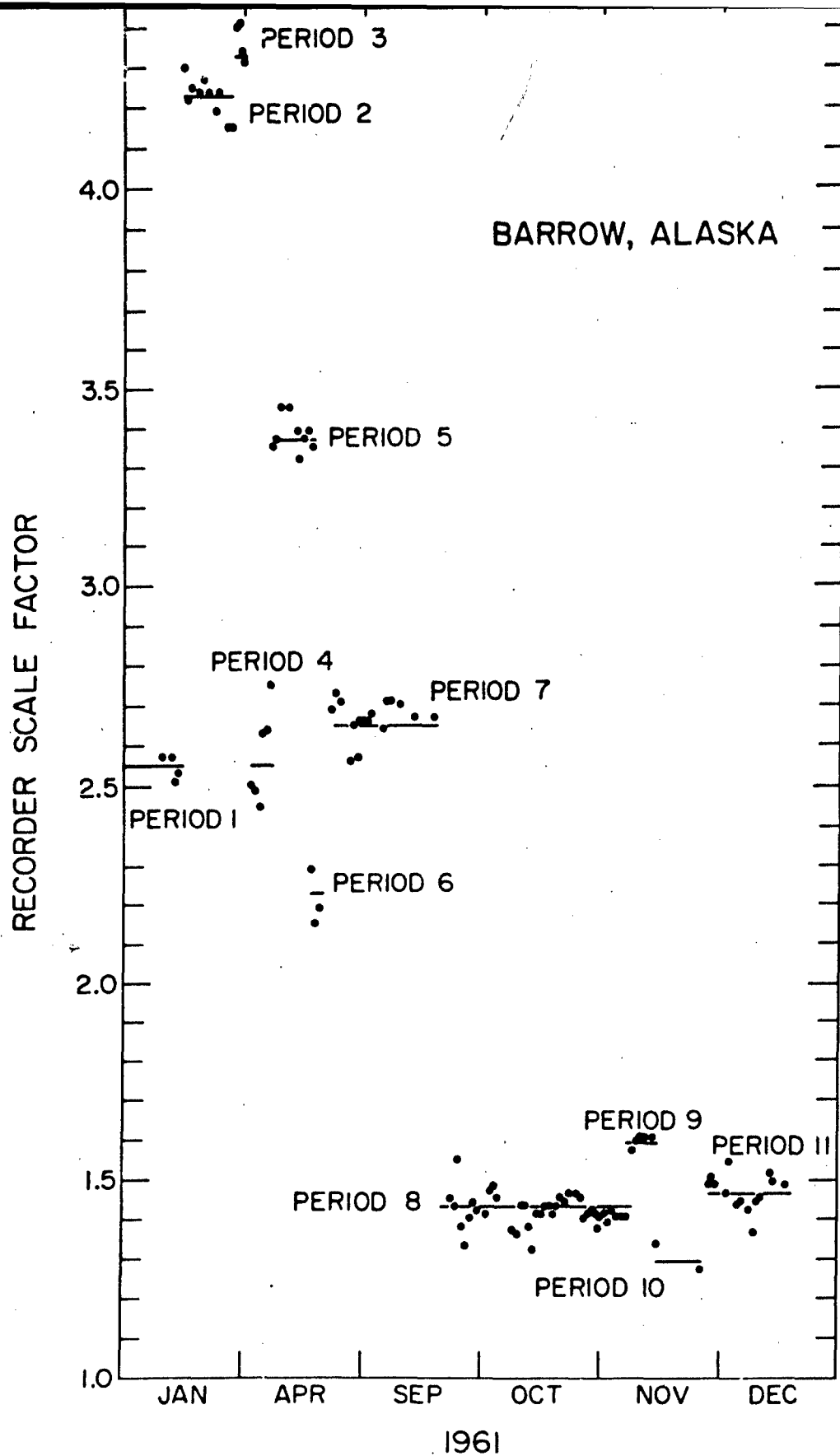
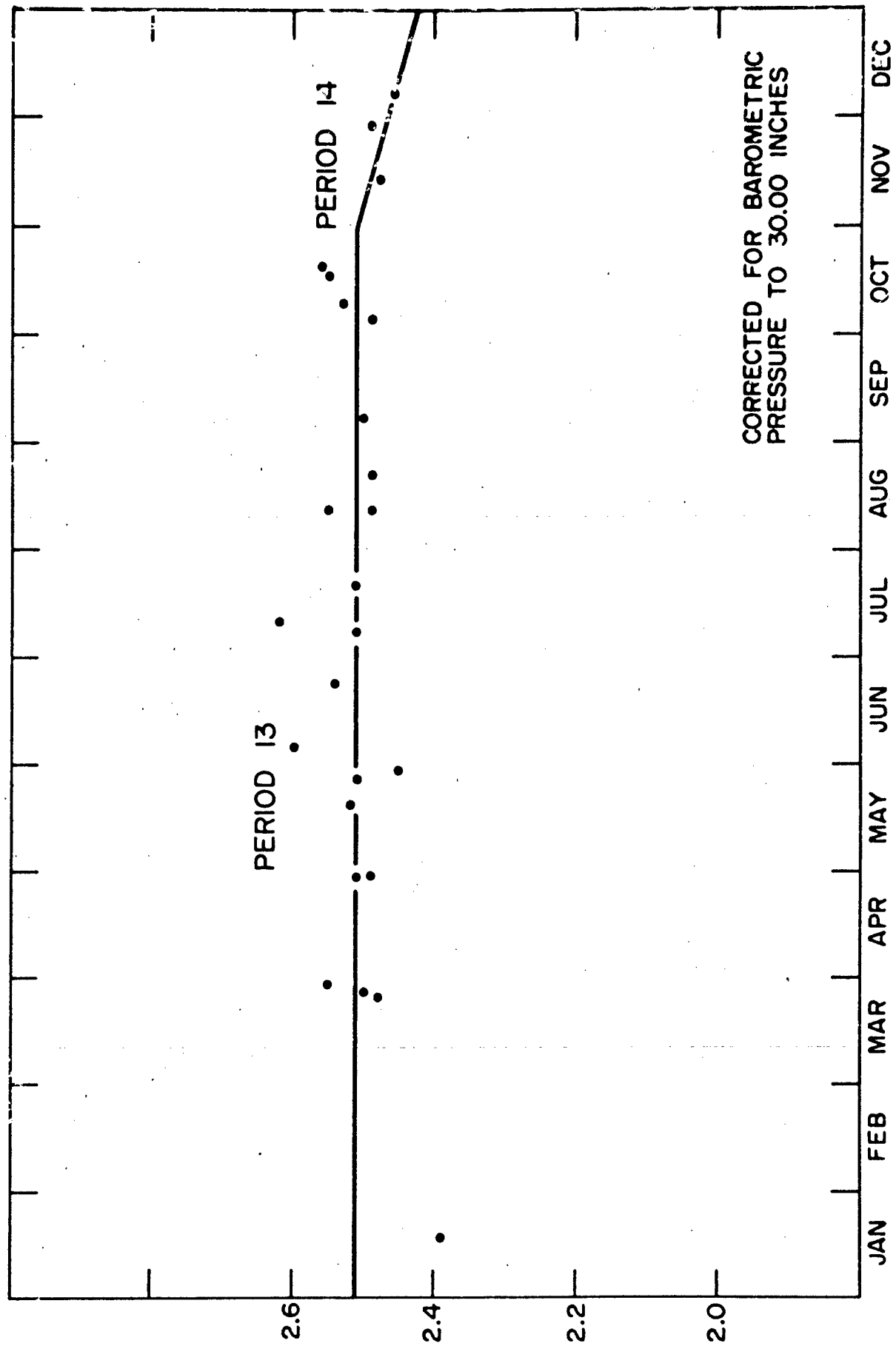
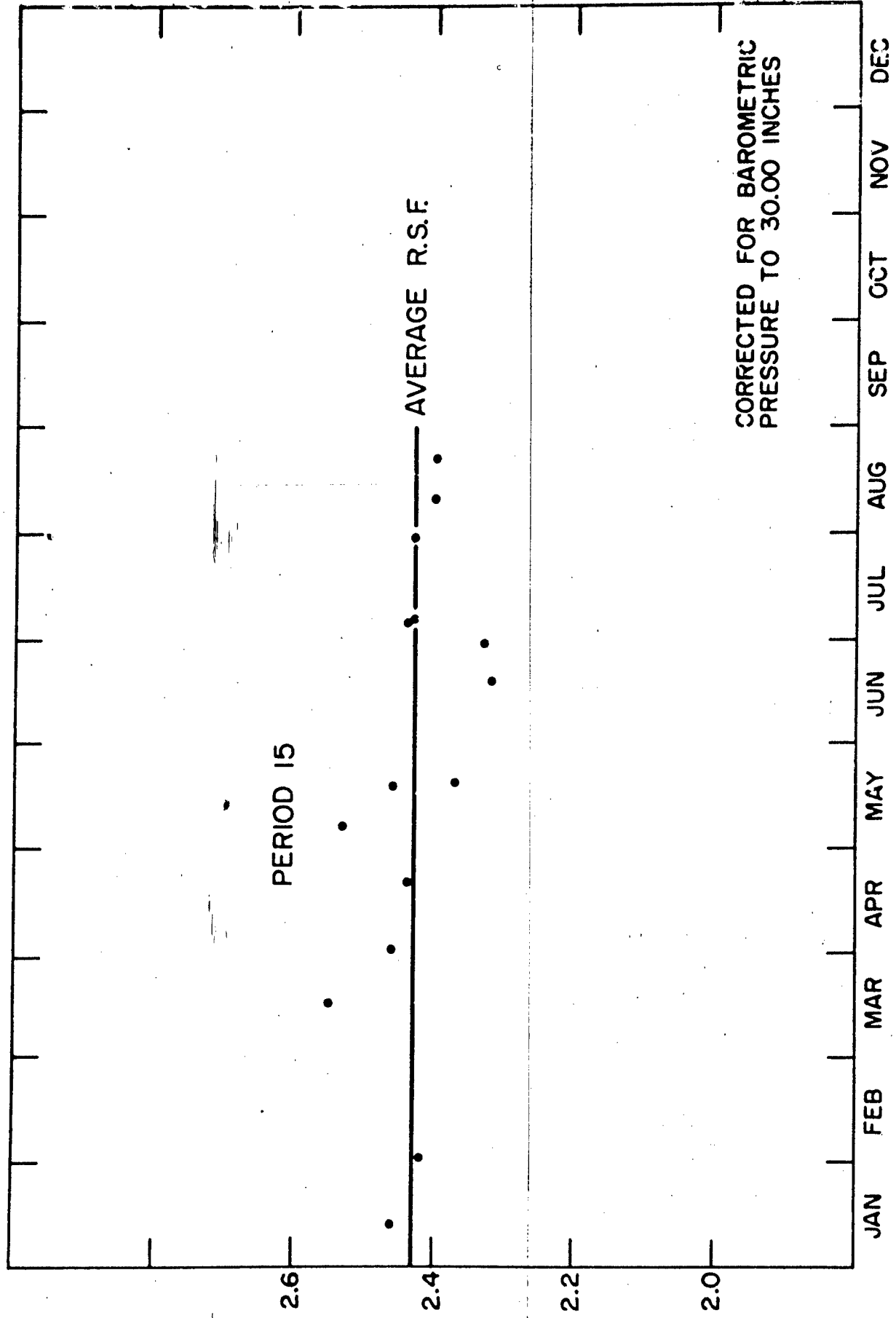


FIG. 3: Recorder Scale Factors (RSF's) Adjusted to Standard Barometric Pressure Versus Calendar Dates, Period 1-11



1962

FIG. 4: Recorder Scale Factors (RSF's) Adjusted to Standard
 Pressure (30.00 inches) for Period 13-14



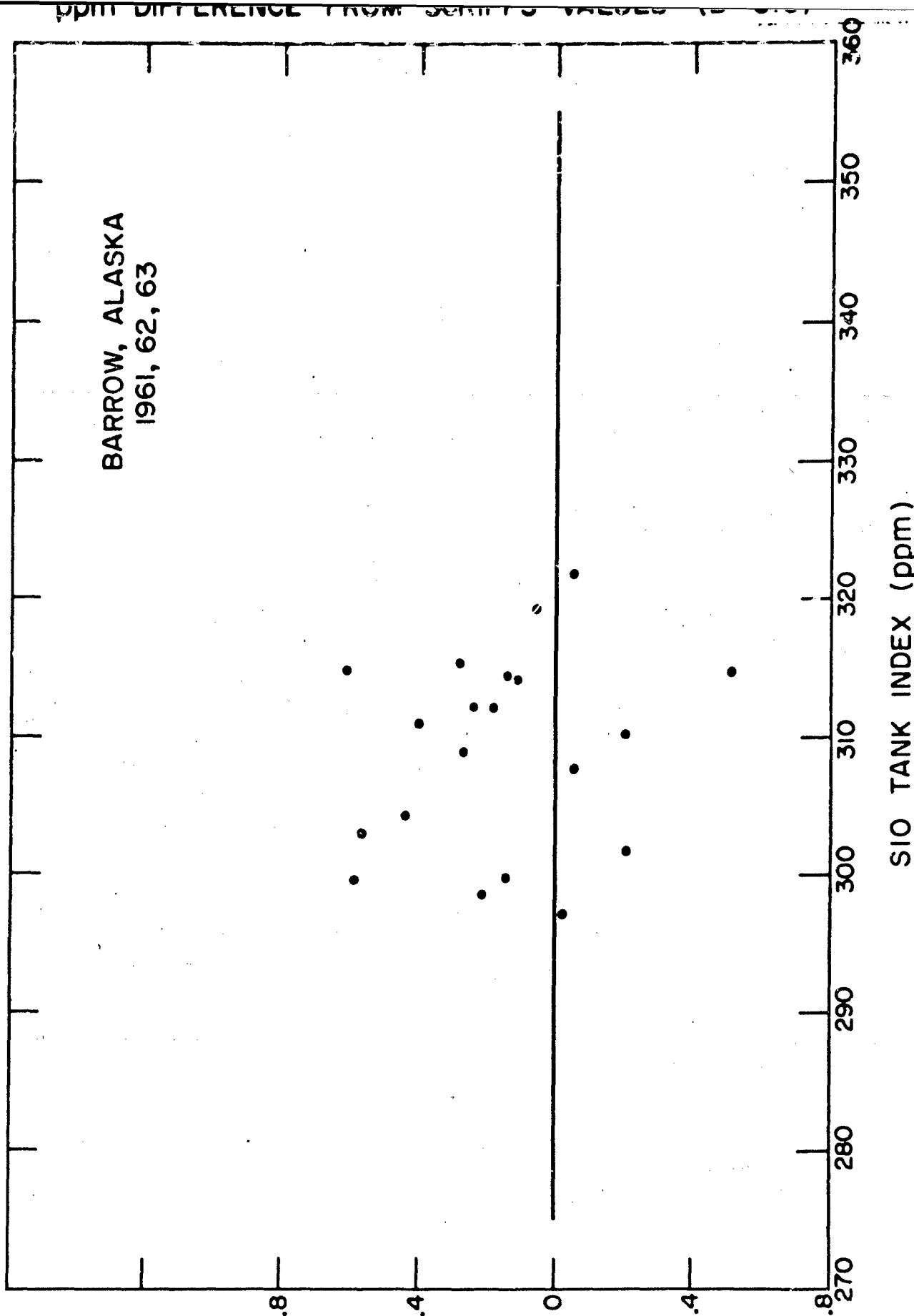


FIG. 6: Differences Between Index Values (ppm) Obtained from Measurements at Barrow and Scripps

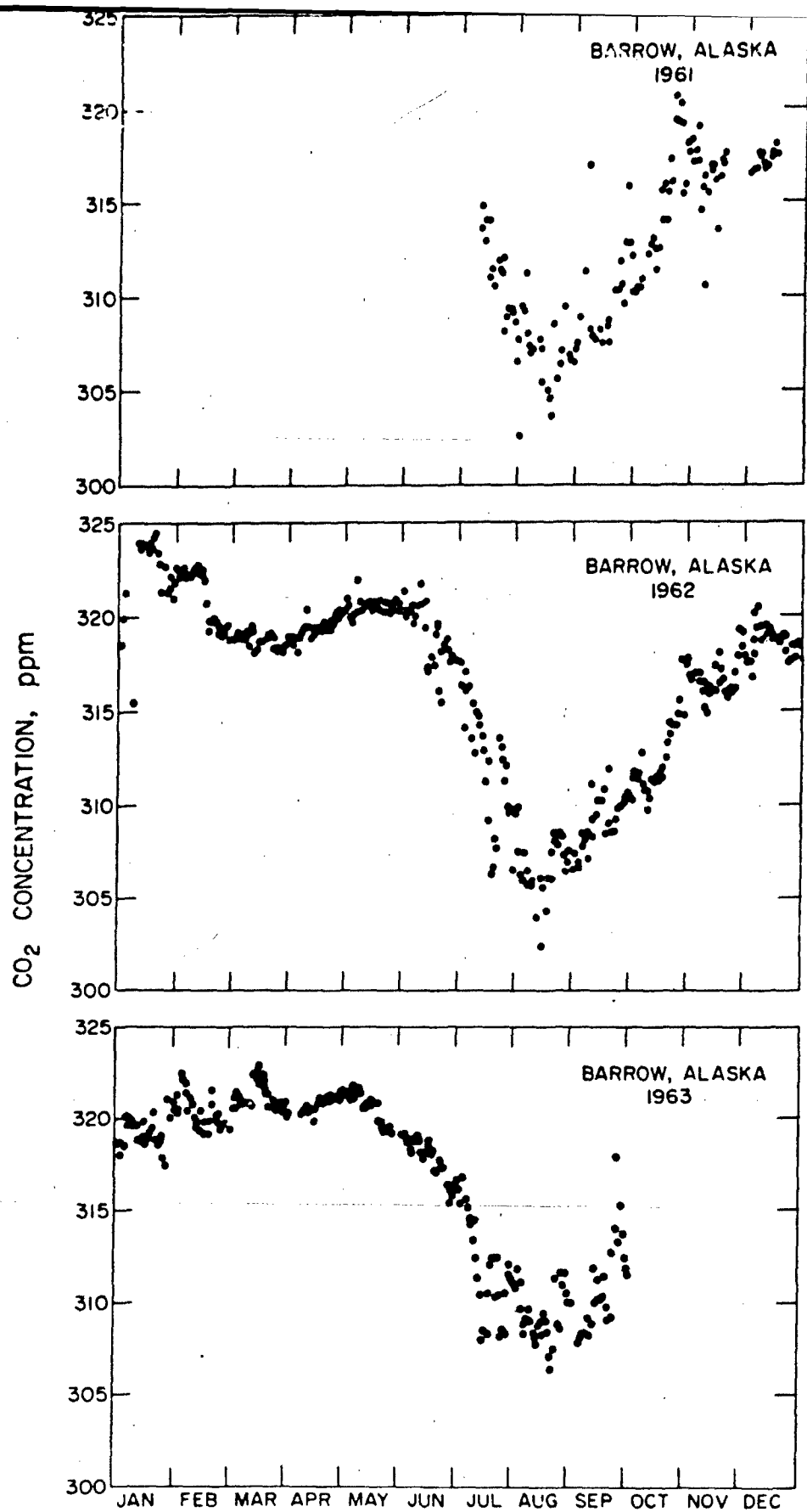


FIG. 7: Daily Average Concentration of CO₂

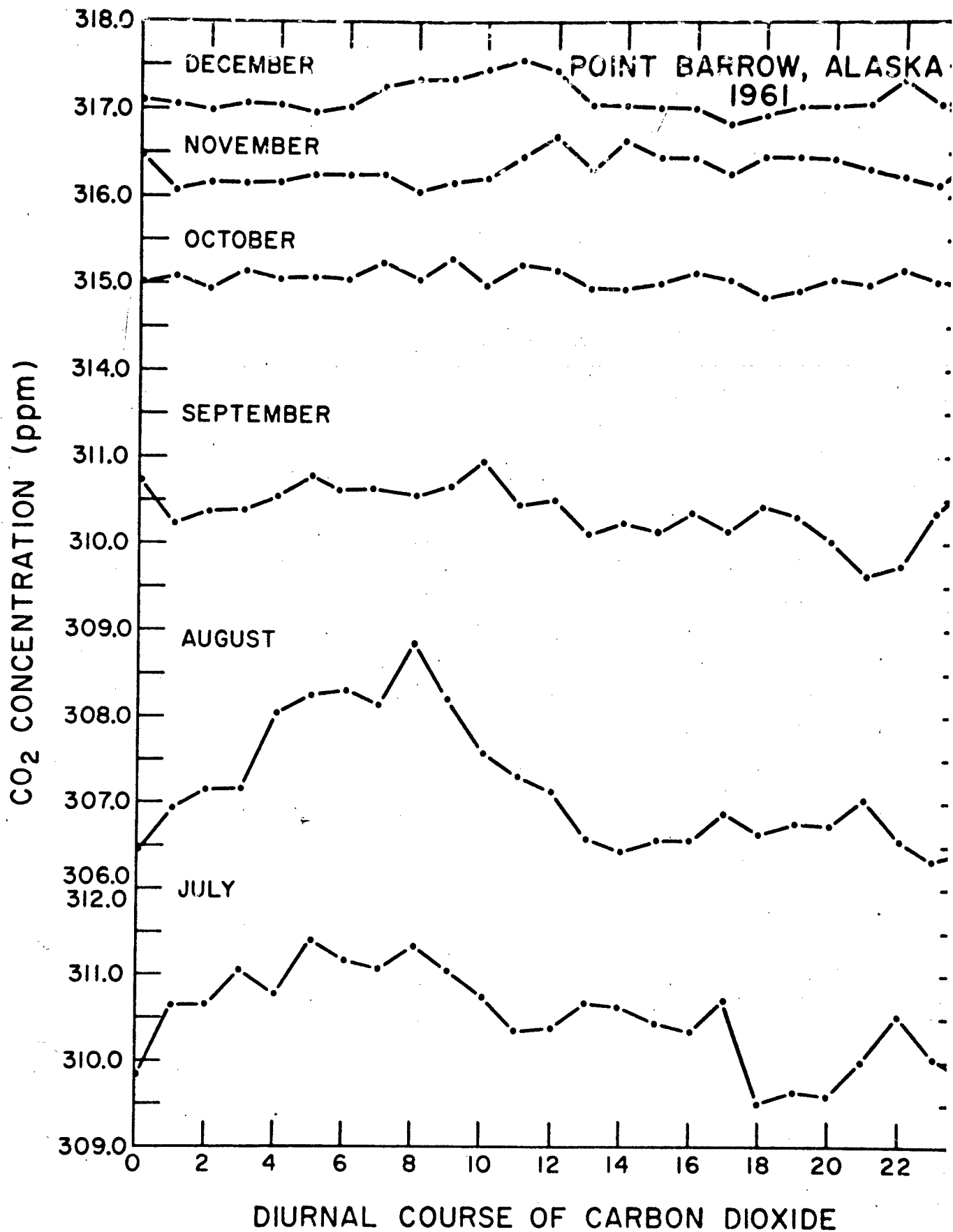


FIG. 8, page 1 of 4 pages: Diurnal Variation of CO₂ at Barrow 1961 to 1963

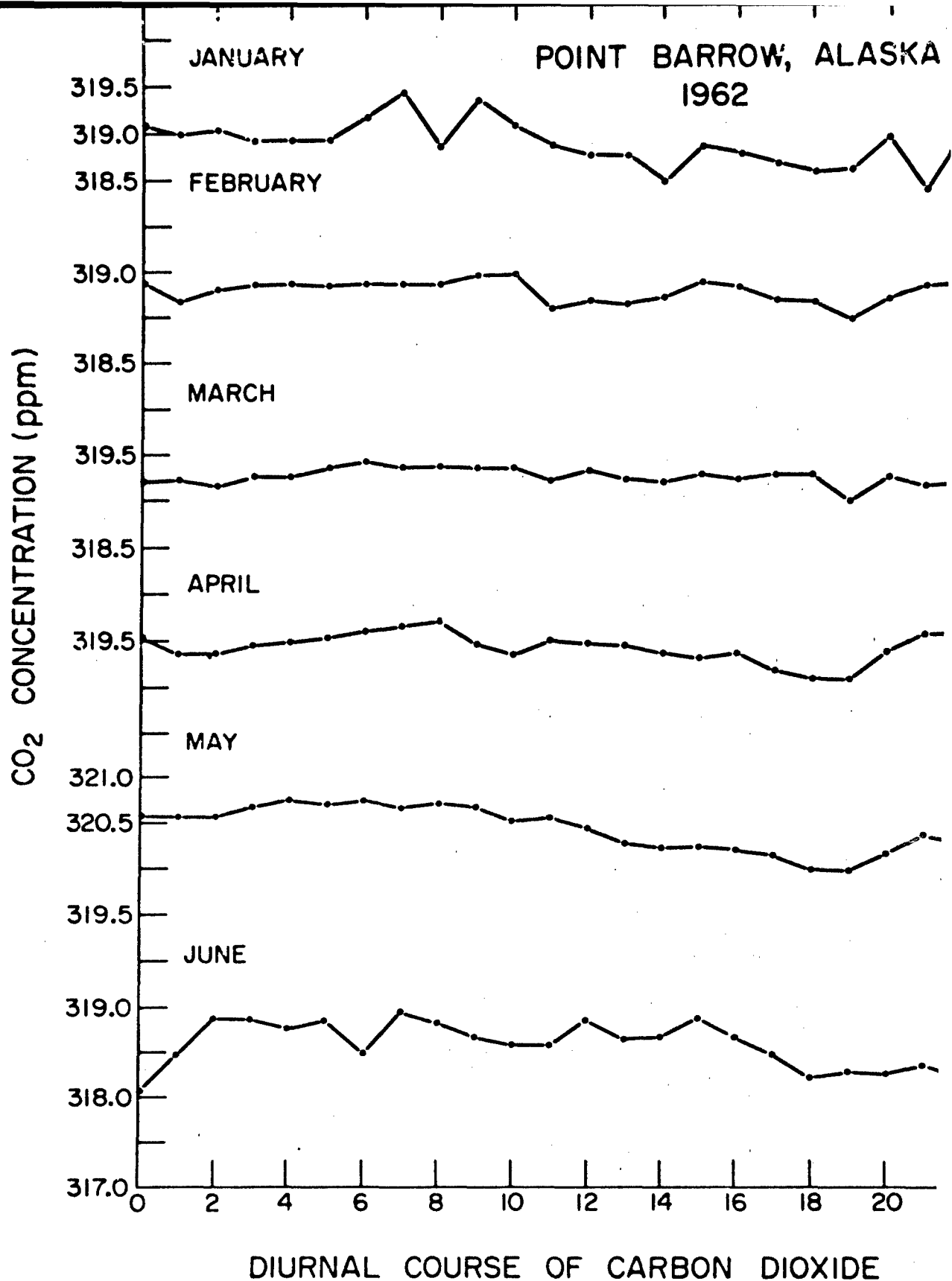


FIG. 3, page 2 of 4 pages: Diurnal Variation of CO₂ at Barrow 1961 to 1963

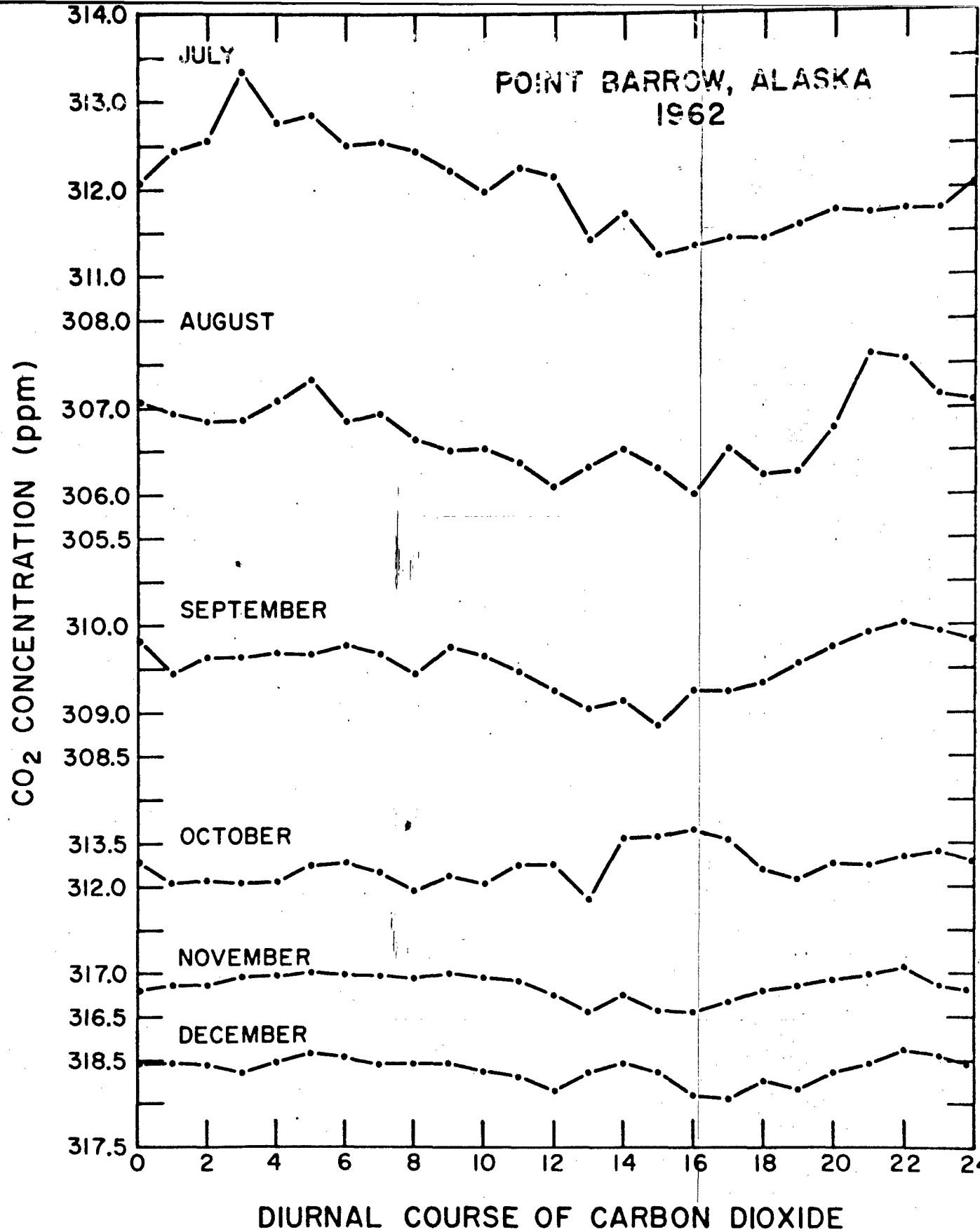


FIG. 8, page 3 of 4 pages: Diurnal Variation of CO₂ at Barrow 1961 to 1963

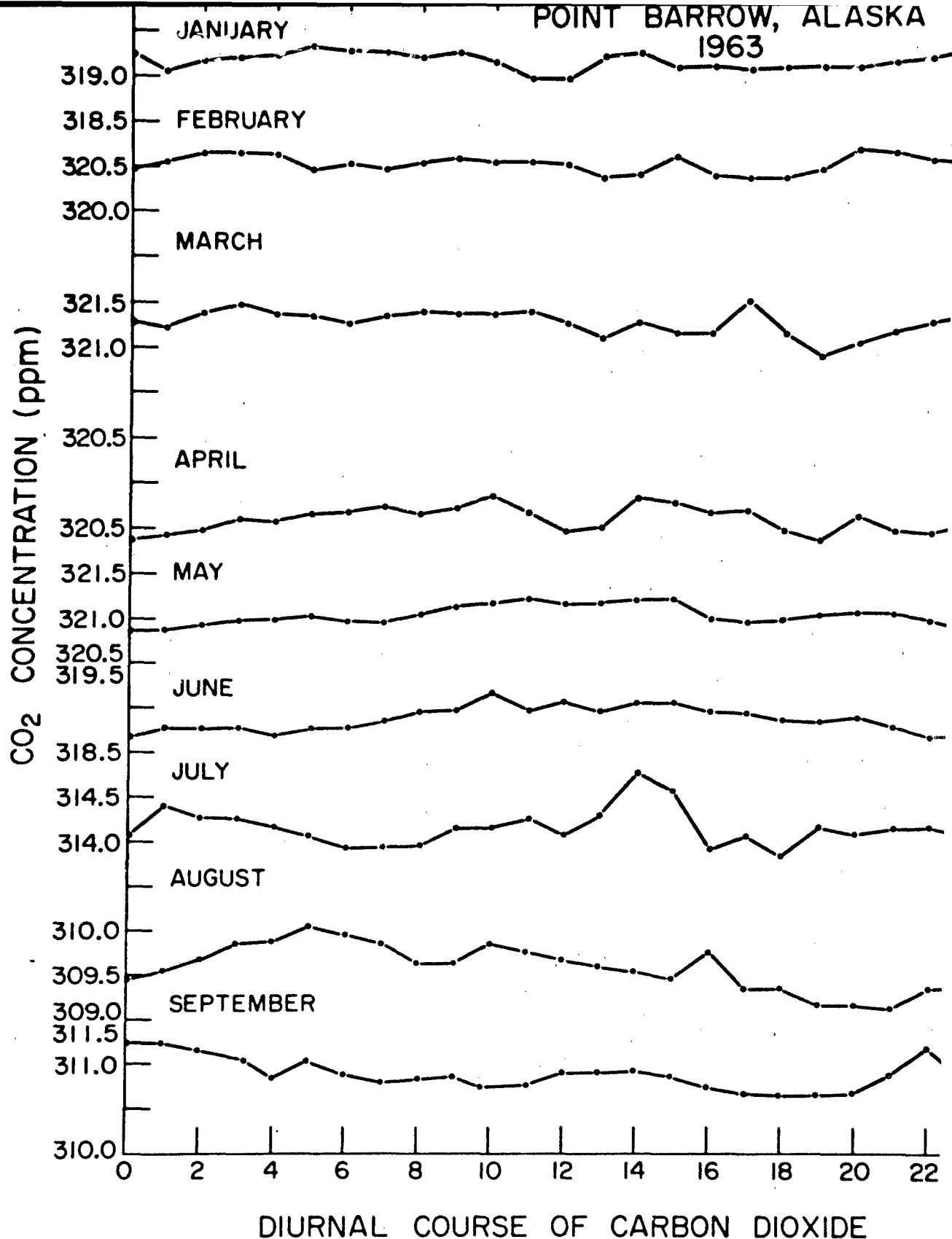


FIG. 3, page 4 of 4 pages: Diurnal Variation of CO_2 at Barrow 1961 to 1963

A R C T I C

---○--- NATCHIK CRUISE
---○--- BIMONTHLY AIR SAMPLES

NOTES:
AIR SAMPLES WERE COLLECTED
ON THE ICY ISLANDS ON THE
1st AND 15th OF EACH MONTH

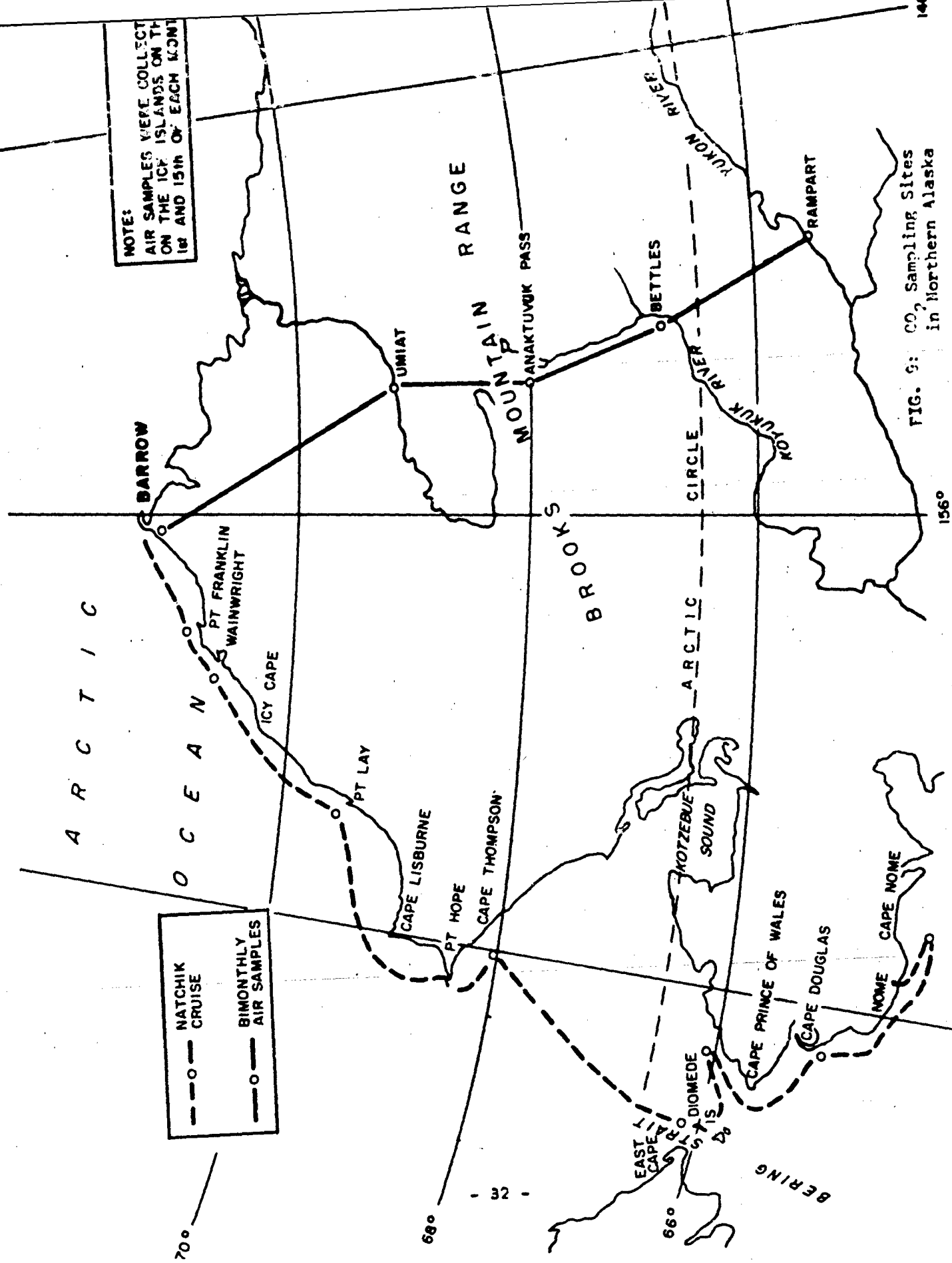


FIG. 9: CO₂ Sampling Sites in Northern Alaska

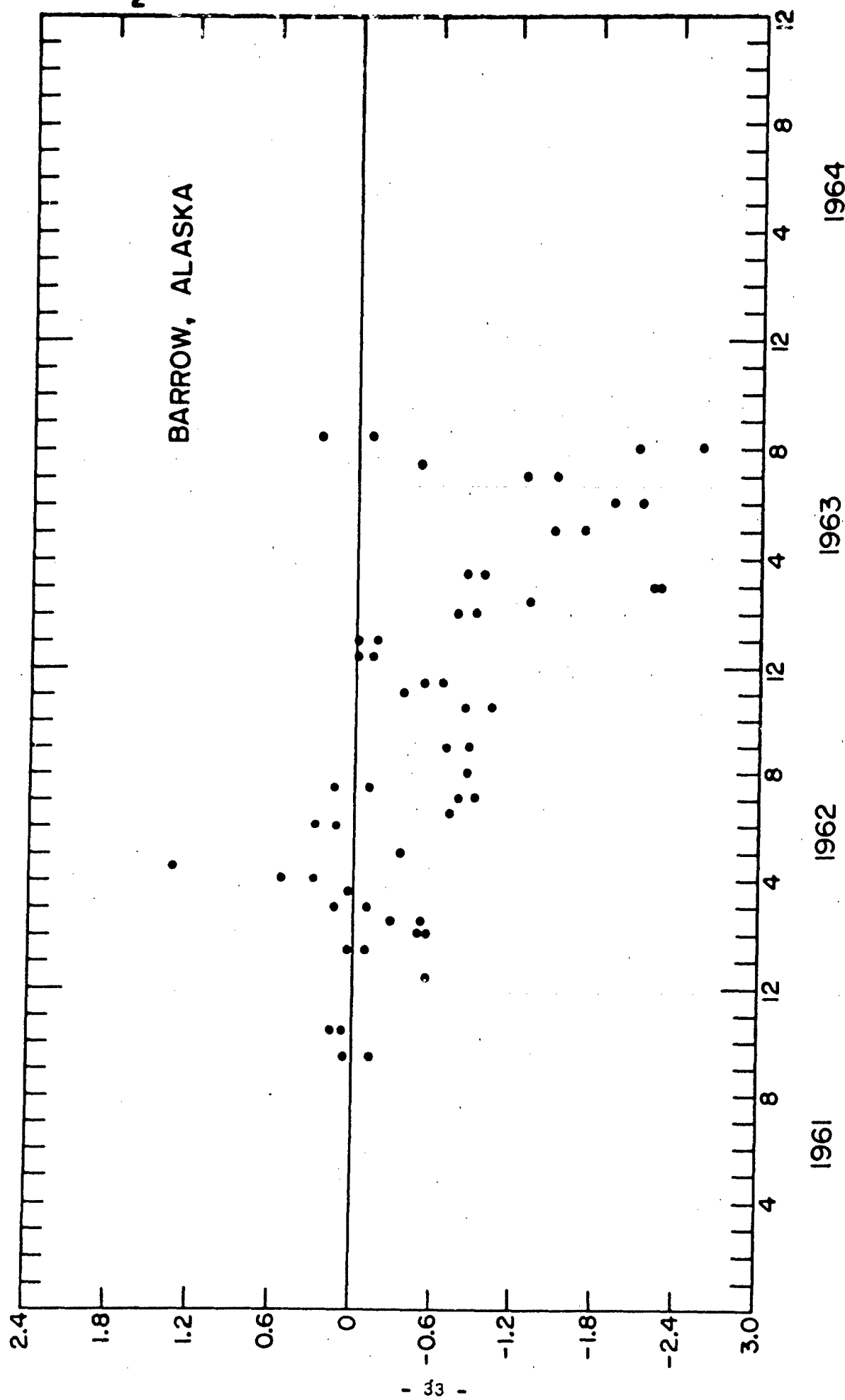


TABLE 1: REFERENCE GAS COMPARISONS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-----------------------|----------------------|----------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor | Computed Index Diff. | Computed Index | Date of Analysis |
| | 10063 | 3756 | - 8.18 | 9 | 1.62 | -13.25 | 297.32 | January 6, 1962 |
| | 10063 | 6074 | 7.06 | 9 | | | | |
| | 6074 | 3756 | - 1.15 | 9 | | - 1.86 | 297.27 | |
| | 10063 | 3756 | - 8.16 | 9 | 1.61 | -13.13 | 297.44 | January 7 |
| | 10063 | 6074 | 7.08 | 9 | | | | |
| | 6074 | 3756 | - 1.10 | 9 | | - 1.77 | 297.36 | |
| | 4291 | 10071 | - 6.61 | 17 | 2.44 | -16.13 | 319.08 | January 17 |
| | 10063 | 4291 | 10.09 | 17 | | | | |
| | 10063 | 10071 | 3.55 | 17 | | 8.66 | 319.10 | |
| | 10063 | 10073 | - 4.63 | 10 | 2.49 | -11.53 | 8.91 | March 24 |
| | 10063 | 4291 | 9.94 | 5 | | | | |
| | 4291 | 10073 | -14.53 | 5 | | -36.13 | 299.03 | |
| | 10063 | 10071 | 3.54 | 10 | 2.49 | 3.81 | 319.25 | March 26 |
| | 10063 | 4291 | 9.86 | 5 | | | | |
| | 4291 | 10071 | - 6.44 | 10 | | -15.04 | 319.17 | |
| | 10063 | 10068 | - 0.55 | 10 | 2.53 | - 1.39 | 309.05 | March 28 |
| | 10063 | 4291 | 9.69 | 6 | | | | |
| | 4291 | 10068 | -10.38 | 10 | | -26.26 | 309.95 | |
| | 10063 | 10068 | - 0.59 | 10 | 2.51 | - 1.43 | 309.03 | April 29 |
| | 10063 | 4291 | 9.83 | 10 | | | | |
| | 4291 | 10068 | -10.46 | 10 | | -26.25 | 309.96 | |

TABLE 1: REFERENCE GAS COMPARISONS

BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-----------------------|----------------------|----------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor | Computed Index Diff. | Computed Index | Date of Analysis |
| | 10063 | 6078 | -2.81 | 9 | 2.53 | -7.11 | 303.33 | April 29, 1962 |
| | 10063 | 4291 | 9.75 | 10 | | | | |
| | 4291 | 6078 | -12.60 | 10 | | -31.88 | 303.33 | |
| | 10063 | 6078 | -2.74 | 10 | 2.51 | -6.03 | 303.56 | May 19 |
| | 10063 | 4291 | 9.87 | 10 | | | | |
| | 4291 | 6078 | -12.66 | 9 | | -31.78 | 303.43 | |
| | 10063 | 6078 | -2.87 | 10 | 2.51 | -7.20 | 303.24 | May 26 |
| | 10063 | 4291 | 9.91 | 10 | | | | |
| | 4291 | 6078 | -12.71 | 10 | | -31.90 | 303.31 | |
| | 10063 | 10068 | -0.50 | 9 | 2.47 | -1.24 | 309.35 | May 28 |
| | 10063 | 4291 | 9.92 | 10 | | | | |
| | 4291 | 10068 | -10.65 | 10 | | -26.31 | 309.10 | |
| | 10063 | 3757 | -4.35 | 10 | 2.57 | -11.18 | 299.26 | June 5 |
| | 10063 | 7351 | 14.59 | 10 | | 25.80 | 299.02 | |
| | 7351 | 3757 | 10.04 | 10 | | | | |
| | 10063 | 3757 | -4.36 | 10 | 2.54 | -11.07 | 299.37 | June 23 |
| | 10063 | 7351 | 14.64 | 10 | | 26.34 | 299.56 | |
| | 7351 | 3757 | 10.37 | 10 | | | | |
| | 10063 | 3757 | -4.49 | 10 | 2.50 | -11.22 | 299.22 | July 7 |
| | 10063 | 7351 | 14.88 | 10 | | 25.93 | 299.15 | |
| | 7351 | 3757 | 10.37 | 10 | | | | |

TABLE 1: REFERENCE GAS COMPARISONS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-----------------------|----------------------|----------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor | Computed Index Diff. | Computed Index | Date of Analysis |
| | 10063 | 2427 | - 5.13 | 10 | 2.60 | -13.34 | 297.10 | July 10, 1962 |
| | 10063 | 7351 | 14.71 | 10 | | | | |
| | 7351 | 2427 | 8.78 | 10 | | 22.83 | 295.05 | |
| | 10063 | 2427 | - 4.95 | 10 | 2.54 | -12.57 | 298.00 | July 20 |
| | 10063 | 7351 | 14.84 | 10 | | | | |
| | 7351 | 2427 | 9.55 | 10 | | 24.26 | 297.87 | |
| | 10063 | 2427 | - 4.85 | 10 | 2.55 | -12.37 | 298.07 | August 11 |
| | 10063 | 7351 | 14.66 | 10 | | | | |
| | 7351 | 2427 | 9.62 | 10 | | 24.53 | 297.75 | |
| | 10063 | 2426 | - 1.13 | 10 | 2.49 | - 2.81 | 307.63 | |
| | 10063 | 7351 | 15.00 | 10 | | | | |
| | 7351 | 2426 | 13.68 | 10 | | 34.06 | 307.28 | |
| | 10063 | 3756 | - 0.20 | 10 | 2.49 | - 0.50 | 309.94 | August 21 |
| | 10063 | 7351 | 14.93 | 10 | | | | |
| | 7351 | 3756 | 15.94 | 10 | | 37.70 | 310.92 | |
| | 10063 | 3756 | - 0.15 | 10 | 2.50 | - 0.38 | 310.06 | September 7 |
| | 10063 | 7351 | 14.90 | 10 | | | | |
| | 7351 | 3756 | 14.71 | 10 | | 36.73 | 309.94 | |
| | 10063 | 2426 | | | 2.49 | | | October 4 |
| | 10063 | 7351 | 14.95 | 10 | | | | |
| | 7351 | 2426 | 13.73 | 10 | | 34.19 | 307.41 | |

TABLE 1: REFERENCE GAS COMPARISONS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|-------------------|----------------------|--------------------|-----------------------|----------------------|----------------|------------------|
| Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor | Computed Index Diff. | Computed Index | Date of Analysis |
| 10063 | 2400 | | | 2.53 | | | October 9, 1962 |
| 10063 | 7351 | 14.72 | 10 | | | | |
| 7351 | 2400 | 15.08 | 10 | | 35.15 | 311.37 | |
| 10063 | 2400 | | | 2.55 | | | October 17 |
| 10063 | 7351 | 14.62 | 10 | | | | |
| 7351 | 2400 | 15.11 | 10 | | 35.53 | 311.75 | |
| 10063 | 10071 | | | 2.56 | | | October 19 |
| 10063 | 7351 | 14.53 | 10 | | | | |
| 7351 | 10071 | 11.13 | 10 | | 28.62 | 301.84 | |
| 10063 | 10071 | | | 2.48 | | | November 13 |
| 10063 | 7351 | 14.99 | 10 | | | | |
| 7351 | 10071 | 11.32 | 10 | | 28.07 | 301.29 | |
| 10063 | 10071 | | | 2.49 | | | November 28 |
| 10063 | 7351 | 14.98 | 10 | | | | |
| 7351 | 10071 | 11.27 | 10 | | 28.06 | 301.26 | |
| 10063 | 10072 | | | 2.46 | | | December 7 |
| 10063 | 7351 | 15.02 | 10 | | | | |
| 7351 | 10072 | 16.72 | 10 | | 41.13 | 314.35 | |
| 10063 | 10072 | | | 2.46 | | | January 12, 1963 |
| 10063 | 7351 | 1.90 | 10 | | | | |
| 7351 | 10072 | 15.04 | 10 | | 4.67 | 315.11 | |
| 7351 | 10072 | 17.06 | 10 | | 42.97 | 315.19 | |

TABLE 1: REFERENCE GAS COMPARISONS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 3 |
|-------------------|-------------------|----------------------|--------------------|-----------------------|----------------------|----------------|------------------|
| Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor | Computed Index Diff. | Computed Index | Date of Analysis |
| 10063 | 4278 | 1.61 | 10 | 2.43 | 3.31 | 314.35 | February 1, 1963 |
| 10063 | 7351 | 15.37 | 6 | | | | |
| 7351 | 7278 | 16.73 | 6 | | 40.73 | 314.00 | |
| 10063 | 4286 | 1.48 | 10 | 2.53 | 3.74 | 314.13 | March 16 |
| 10063 | 7351 | 14.51 | 10 | | | | |
| 7351 | 4286 | 16.41 | 9 | | 41.52 | 314.70 | |
| 10063 | 4286 | 1.54 | 10 | 2.43 | 3.82 | 314.27 | April 1 |
| 10063 | 7351 | 15.00 | 10 | | | | |
| 7351 | 4286 | 16.46 | 10 | | 40.32 | 314.21 | |
| 10063 | 7362 | 2.14 | 10 | 2.47 | 5.29 | 315.73 | April 20 |
| 10063 | 7351 | 15.04 | 10 | | | | |
| 7351 | 7362 | 17.24 | 10 | | 42.58 | 315.80 | |
| 10063 | 7362 | 2.11 | 10 | 2.47 | 5.23 | 315.69 | May 6 |
| 10063 | 7351 | 14.97 | 10 | | | | |
| 7351 | 7362 | 17.00 | 10 | | 42.33 | 315.55 | |
| 10063 | 7362 | 2.09 | 10 | 2.40 | 5.14 | 315.56 | May 18 |
| 10063 | 7351 | 15.23 | 10 | | | | |
| 7351 | 7362 | 17.32 | 10 | | 42.61 | 315.93 | |
| 10063 | 4284 | 4.75 | 10 | 2.37 | 11.25 | 321.70 | May 19 |
| 10063 | 4283 | 13.74 | 10 | | | | |
| 4283 | 4284 | - 8.99 | 10 | | -21.31 | 321.71 | |

TABLE 1: REFERENCE GAS COMPARISONS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 2 3 4 5 6 7 8 | | | | | | | |
|----------------------|-------------------|----------------------|--------------------|-----------------------|----------------------|----------------|------------------|
| Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor | Computed Index Diff. | Computed Index | Date of Analysis |
| 10063 | 4284 | 4.90 | 10 | 2.33 | 11.42 | 321.86 | June 18, 1963 |
| 10063 | 4283 | 13.92 | 10 | | | | |
| 4283 | 4284 | - 9.13 | 10 | | -21.27 | 321.75 | |
| 10063 | 4284 | 5.01 | 10 | 2.33 | 11.67 | 322.11 | June 29 |
| 10063 | 4283 | 14.10 | 10 | | | | |
| 4283 | 4284 | - 9.06 | 10 | | -21.11 | 322.91 | |
| 10063 | 4272 | 0.84 | 8 | 2.44 | 1.98 | 312.42 | July 6 |
| 10063 | 7351 | 15.29 | 10 | | | | |
| 7351 | 4272 | 16.11 | 10 | | 39.21 | 312.43 | |
| 10063 | 3757 | - 0.84 | 10 | 2.44 | - 2.04 | 312.43 | |
| 10063 | 7351 | 15.29 | 10 | | | | |
| 7351 | 3757 | 16.04 | 10 | | 39.15 | 312.37 | |
| 10063 | 18204 | 1.70 | 10 | 2.43 | 4.11 | 314.55 | July 29 |
| 10063 | 7351 | 15.36 | 9 | | | | |
| 7351 | 18204 | 17.03 | 10 | | 41.21 | 314.43 | |
| 10063 | 18204 | 1.70 | 10 | 2.41 | 4.11 | 314.55 | August 10 |
| 10063 | 7351 | 15.41 | 9 | | | | |
| 7351 | 18204 | 17.03 | 9 | | 41.21 | 314.43 | |
| 10063 | 18204 | 1.73 | 3 | 2.41 | 4.17 | 314.61 | August 21 |
| 10063 | 7351 | 15.41 | 10 | | | | |
| 7351 | 18204 | 17.20 | 10 | | 41.45 | 314.67 | |

TABLE 2: RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-------------|---------------------|-------------------------|--------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Index Diff. | Recorder Single Set | Scale Factor Wttd. Avg. | Date of Analysis |
| | 10063 | 6074 | 7.97 | 3 | 11.45 | 1.43 | | September 26, 1961 |
| | 10063 | 3755 | 4.04 | 5 | | | | |
| | 6074 | 3755 | 3.98 | 5 | | | | |
| | 10063 | 6074 | 8.02* | 5* | 11.45 | 1.43 | 1.43 | |
| | 10063 | 6074 | | 8 | | | | |
| | 10063 | 6074 | | | 11.45 | | | November 27 |
| | 10063 | 3756 | 8.85 | 16 | | | | |
| | 6074 | 3756 | -1.35 | 10 | | | | |
| | 10063 | 6074 | 7.50* | 10* | 11.45 | 1.53 | 1.53 | |
| | 10063 | 6074 | | 10 | | | | |
| | 10063 | 6074 | 7.06 | 3 | 11.45 | 1.62 | | January 6, 1962 |
| | 10063 | 3756 | 8.18 | 9 | | | | |
| | 6074 | 3756 | -1.15 | 9 | | | | |
| | 10063 | 6074 | 7.03* | 9* | 11.45 | 1.63 | 1.62 | |
| | 10063 | 6074 | | 13 | | | | |
| | 10063 | 6074 | 7.08 | 8 | 11.45 | 1.62 | | January 7 |
| | 10063 | 3756 | 8.16 | 9 | | | | |
| | 6074 | 3756 | -1.10 | 9 | | | | |
| | 10063 | 6074 | 7.06* | 9* | 11.45 | 1.62 | 1.62 | |
| | 10063 | 6074 | | 17 | | | | |

* See Text

TABLE 2: RECORDER SCALE FACTORS

BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-------------|---------------------|--------------------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Index Diff. | Recorder Single Set | Scale Factor Wgted. Avg. | Date of Analysis |
| | 10063 | 4291 | 10.09 | 17 | 24.77 | 2.45 | | January 17, 1962 |
| | 10063 | 10071 | 3.55 | 17 | | | | |
| | 4291 | 10071 | -6.61 | 17 | | | | |
| | 10063 | 4291 | 10.16* | 17* | 24.77 | 2.44 | 2.44 | |
| | | | | 34 | | | | |
| | 10063 | 4291 | 9.94 | 5 | 24.77 | 2.49 | | March 24 |
| | 10063 | 10073 | 4.63 | 10 | | | | |
| | 4291 | 10073 | -14.53 | 5 | | | | |
| | 10063 | 4291 | 9.90* | 5* | 24.77 | 2.50 | 2.49 | |
| | | | | 10 | | | | |
| | 10063 | 4291 | 9.86 | 5 | 24.77 | 2.51 | | March 26 |
| | 10063 | 10071 | 3.54 | 10 | | | | |
| | 4291 | 10071 | -6.44 | 10 | | | | |
| | 10063 | 4291 | 9.98* | 10* | 24.77 | 2.48 | 2.49 | |
| | | | | 15 | | | | |
| | 10063 | 4291 | 9.69 | 6 | 24.77 | 2.56 | | March 28 |
| | 10063 | 10068 | 0.55 | 10 | | | | |
| | 4291 | 10068 | -10.38 | 10 | | | | |
| | 10063 | 4291 | 9.83* | 10* | 24.77 | 2.52 | 2.53 | |
| | | | | 16 | | | | |
| | 10063 | 4291 | 9.83 | 10 | 24.77 | 2.52 | | April 29 |
| | 10063 | 10068 | 0.55 | 10 | | | | |

TABLE 2: RECORDER SCALE FACTORS

BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-------------|---------------------|--------------------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Index Diff. | Recorder Single Set | Scale Factor Wated. Avg. | Date of Analysis |
| | 10063 | 4291 | 9.75 | 10 | 24.77 | 2.54 | | April 29, 1962 |
| | 10063 | 6078 | 2.81 | 9 | | | | |
| | 4291 | 6078 | -12.60 | 10 | | | | |
| | 10063 | 4291 | 9.79* | 9* | 24.77 | 2.53 | 2.53 | |
| | | | | 19 | | | | |
| | 10063 | 4291 | 9.87 | 10 | 24.77 | 2.51 | | May 19 |
| | 10063 | 6078 | 2.74 | 10 | | | | |
| | 4291 | 6078 | -12.66 | 9 | | | | |
| | 10063 | 4291 | 9.92* | 9* | 24.77 | 2.50 | 2.51 | |
| | | | | 19 | | | | |
| | 10063 | 4291 | 9.91 | 10 | 24.77 | 2.50 | | May 26 |
| | 10063 | 6078 | 2.87 | 10 | | | | |
| | 4291 | 6078 | -12.71 | 10 | | | | |
| | 10063 | 4291 | 9.84* | 10* | 24.77 | 2.52 | 2.51 | |
| | | | | 20 | | | | |
| | 10063 | 4291 | 9.92 | 10 | 24.77 | 2.50 | | May 28 |
| | 10063 | 10068 | -0.50 | 9 | | | | |
| | 4291 | 10068 | 10.65 | 10 | | | | |
| | 10063 | 4291 | 10.15* | 9* | 24.77 | 2.44 | 2.47 | |
| | | | | 19 | | | | |
| | 10063 | 7351 | 14.59 | 10 | 37.22 | 2.55 | | June 5 |
| | 10063 | 3757 | 4.36 | 10 | | | | |
| | 7351 | 3757 | 10.04 | 10 | | | | |
| | 10063 | 7351 | 14.40* | 10* | 37.22 | 2.58 | 2.57 | |
| | | | | 20 | | | | |

* See Text

TABLE 2: RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-------------|---------------------|-------------------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Index Diff. | Recorder Single Set | Scale Factor Wgtd. Avg. | Date of Analysis |
| | 10063 | 7351 | 14.64 | 10 | 37.22 | 2.54 | | June 23, 1962 |
| | 10063 | 3757 | 4.36 | 10 | | | | |
| | 7351 | 3757 | 10.37 | 10 | | | | |
| | 10063 | 7351 | 14.73* | 10* | 37.22 | 2.53 | 2.54 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 14.88 | 10 | 37.22 | 2.50 | | July 7 |
| | 10063 | 3757 | 4.49 | 10 | | | | |
| | 7351 | 3757 | 10.37 | 10 | | | | |
| | 10063 | 7351 | 14.86* | 10* | 37.22 | 2.50 | 2.50 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 14.71 | 10 | 37.22 | 2.53 | | July 10 |
| | 10063 | 2427 | 5.13 | 10 | | | | |
| | 7351 | 2427 | 9.78 | 10 | | | | |
| | 10063 | 7351 | 13.91* | 10* | 37.22 | 2.67 | 2.60 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 14.34 | 10 | 37.22 | 2.51 | | July 20 |
| | 10063 | 2427 | 4.95 | 10 | | | | |
| | 7351 | 2427 | 9.55 | 10 | | | | |
| | 10063 | 7351 | 14.50* | 10* | 37.22 | 2.57 | 2.54 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 14.66 | 10 | 37.22 | 2.54 | | August 11 |
| | 10063 | 2427 | 4.85 | 10 | | | | |
| | 7351 | 2427 | 9.62 | 10 | | | | |
| | 10063 | 7351 | 14.47* | 10* | 37.22 | 2.57 | 2.55 | |
| | | | | 20 | | | | |

TABLE 2: RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-------------|---------------------|--------------------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Index Diff. | Recorder Single Set | Scale Factor Wgted. Avg. | Date of Analysis |
| | 10063 | 7351 | 15.00 | 10 | 37.22 | 2.48 | | August 11, 1962 |
| | 10063 | 2426 | 1.13 | 10 | | | | |
| | 7351 | 2426 | 13.68 | 10 | | | | |
| | 10063 | 7351 | 14.81* | 10* | 37.22 | 2.51 | 2.49 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 14.93 | 10 | 37.22 | 2.49 | | August 21 |
| | 10063 | 3756 | - 0.20 | 10 | | | | |
| | 7351 | 3756 | 15.14 | 10 | | | | |
| | 10063 | 7351 | 14.91* | 10* | 37.22 | 2.50 | 2.49 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 14.90 | 10 | 37.22 | 2.50 | | September 7 |
| | 10063 | 3756 | 0.15 | 10 | | | | |
| | 7351 | 3756 | 14.71 | 10 | | | | |
| | 10063 | 7351 | 14.66* | 10* | 37.22 | 2.50 | 2.50 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 14.95 | 10 | 37.22 | 2.49 | | October 4 |
| | 10063 | 7351 | 14.72 | 10 | 37.22 | 2.53 | | 9 |
| | 10063 | 7351 | 14.62 | 10 | 37.22 | 2.55 | | 17 |
| | 10063 | 7351 | 14.53 | 10 | 37.22 | 2.56 | | 19 |
| | 10063 | 7351 | 14.99 | 10 | 37.22 | 2.48 | | November 13 |
| | 10063 | 7351 | 14.98 | 10 | 37.22 | 2.49 | | 28 |
| | 10063 | 7351 | 15.02 | 10 | 37.22 | 2.48 | | December 7 |

* See Text

TABLE 2: RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-------------|---------------------|-------------------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Index Diff. | Recorder Single Set | Scale Factor Wptd. Avg. | Date of Analysis |
| | 10063 | 7351 | 15.04 | 10 | 37.22 | 2.47 | | January 12, 1963 |
| | 10063 | 10072 | - 1.90 | 10 | | | | |
| | 7351 | 10072 | 17.06 | 10 | | | | |
| | 10063 | 7351 | 15.36* | 10* | 37.22 | 2.46 | 2.46 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 15.37 | 10 | 37.22 | 2.42 | | February 1 |
| | 10063 | 4278 | - 1.61 | 6 | | | | |
| | 7351 | 4278 | 16.78 | 6 | | | | |
| | 10063 | 7351 | 15.17* | 6* | 37.22 | 2.45 | 2.43 | |
| | | | | 16 | | | | |
| | 10063 | 7351 | 14.51 | 10 | 37.22 | 2.56 | | March 16 |
| | 10063 | 4286 | - 1.46 | 10 | | | | |
| | 7351 | 4286 | 16.41 | 9 | | | | |
| | 10063 | 7351 | 14.93* | 9* | 37.22 | 2.49 | 2.53 | |
| | | | | 19 | | | | |
| | 10063 | 7351 | 15.00 | 10 | 37.22 | 2.48 | | April 1 |
| | 10063 | 4286 | - 1.54 | 10 | | | | |
| | 7351 | 4286 | 16.46 | 10 | | | | |
| | 10063 | 7351 | 14.92* | 10* | 37.22 | 2.49 | 2.49 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 15.04 | 10 | 37.22 | 2.47 | 2.49 | April 20 |
| | 10063 | 7362 | - 2.14 | 10 | | | | |
| | 7351 | 7362 | 17.24 | 10 | | | | |
| | 10063 | 7351 | 15.10* | 10* | 37.22 | 2.46 | | |

TABLE 2: RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-------------|---------------------|--------------------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Index Diff. | Recorder Single Set | Scale Factor Noted. Avg. | Date of Analysis |
| | 10063 | 7351 | 14.97 | 10 | 37.22 | 2.43 | | May 6, 1963 |
| | 10063 | 7362 | - 2.11 | 10 | | | | |
| | 7351 | 7362 | 17.00 | 10 | | | | |
| | 10063 | 7351 | 14.89* | 10* | 37.22 | 2.50 | 2.49 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 15.03 | 10 | 37.22 | 2.43 | | May 18 |
| | 10063 | 7362 | - 2.09 | 10 | | | | |
| | 7351 | 7362 | 17.32 | 10 | | | | |
| | 10063 | 7351 | 15.23* | 10* | 37.22 | 2.44 | 2.46 | |
| | | | | 20 | | | | |
| | 10063 | 4283 | 13.78 | 10 | 32.58 | 2.36 | | May 19 |
| | 10063 | 4284 | 4.75 | 10 | | | | |
| | 4283 | 4284 | 8.99 | 10 | | | | |
| | 10063 | 4283 | 13.74* | 10* | 32.58 | 2.37 | 2.37 | |
| | | | | 20 | | | | |
| | 10063 | 4283 | 13.92 | 10 | 32.56 | 2.34 | | June 18 |
| | 10063 | 4284 | 4.90 | 10 | | | | |
| | 4283 | 4284 | 9.13 | 10 | | | | |
| | 10063 | 4283 | 14.03* | 10* | 32.58 | 2.32 | 2.33 | |
| | | | | 20 | | | | |
| | 10063 | 4283 | 14.10 | 10 | 32.84 | 2.33 | | June 19 |
| | 10063 | 4284 | 5.01 | 10 | | | | |
| | 4283 | 4284 | 9.06 | 10 | | | | |
| | 10063 | 4283 | 14.07* | 10* | 32.84 | 2.33 | 2.33 | |
| | | | | 20 | | | | |

* See Text

TABLE 2: RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-------------------|-------------------|----------------------|--------------------|-------------|---------------------|--------------------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Index Diff. | Recorder Single Set | Scale Factor Wgted. Avg. | Date of Analysis |
| | 10063 | 7351 | 15.29 | 10 | 37.22 | 2.43 | | July 5, 1963 |
| | 10063 | 4272 | - 0.81 | 8 | | | | |
| | 7351 | 4272 | 16.07 | 10 | | | | |
| | 10063 | 7351 | 15.26* | 10* | 37.22 | 2.44 | 2.44 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 15.29 | 10 | 37.22 | 2.43 | | July 6 |
| | 10063 | 3757 | - 0.84 | 10 | | | | |
| | 7351 | 3757 | 16.11 | 10 | | | | |
| | 10063 | 7351 | 15.27* | 10* | 37.22 | 2.44 | 2.43 | |
| | | | | 20 | | | | |
| | 10063 | 7351 | 15.36 | 9 | 37.22 | 2.42 | | July 29 |
| | 10063 | 18204 | - 1.70 | 10 | | | | |
| | 7351 | 18204 | 17.08 | 10 | | | | |
| | 10063 | 7351 | 15.33* | 10* | 37.22 | 2.43 | 2.43 | |
| | | | | 19 | | | | |
| | 10063 | 7351 | 15.41 | 9 | 37.22 | 2.42 | | August 10 |
| | 10063 | 18204 | - 1.73 | 10 | | | | |
| | 7351 | 18204 | 17.20 | 9 | | | | |
| | 10063 | 7351 | 15.47* | 10* | 37.22 | 2.41 | 2.41 | |
| | | | | 19 | | | | |
| | 10063 | 7351 | 15.48 | 10 | 37.22 | 2.40 | | August 21 |
| | 10063 | 18204 | - 1.70 | 9 | | | | |
| | 7351 | 18204 | 17.27 | 10 | | | | |
| | 10063 | 7351 | 15.57* | 9* | 37.22 | 2.39 | 2.40 | |
| | | | | 19 | | | | |

TABLE 3: SUMMARY OF RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|-------------------|-------------------|--|---|--|--|--|---|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor Single Set | Recorder Scale Factor Bar. Press. (Inches) | Adjusted Recorder Scale Factor | Date of Analysis |
| Period 1 | 148 | 10072 | 15.69 15.72 15.91 15.74 | 30 39 45 6 | 2.56 2.56 2.52 2.55 | 29.89 29.88 30.12 30.23 | 2.57 2.57 2.51 2.53 | July 10, 1961 12 13 14 |
| | | | | | Weighted Average R. S. F. (Adjusted) for Period 1 = 2.55 | | | |
| Period 2 | 10070 | 10064 | 15.35 15.64 15.54 15.60 15.56 15.63 15.67 15.43 15.68 15.71 | 20 44 27 4 9 6 14 2 2 11 | 4.27 4.19 4.21 4.20 4.21 4.19 4.18 4.23 4.18 4.17 | 29.77 29.77 29.72 29.70 29.58 29.62 29.96 29.94 30.20 30.16 | 4.30 4.22 4.25 4.24 4.27 4.24 4.19 4.24 4.15 4.15 | July 15 16 17 19 20 21 23 24 26 27 |
| | | | | | Weighted Average R. S. F. (Adjusted) for Period 2 = 4.23 | | | |
| Period 3 | 10070 | 10065 | 15.35 15.35 15.28 15.57 | 2 3 2 27 | 4.40 4.40 4.29 4.21 | 30.02 29.94 29.63 29.33 | 4.40 4.41 4.34 4.31 | July 28 29 30 31 |
| | | | | | Weighted Average R. S. F. (Adjusted) for Period 3 = 4.33 | | | |

TABLE 3: SUMMARY OF RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|-------------------|-------------------|--|--|--|---|--|---|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor Single Set (inches) | Recorder Scale Factor Bar. Press. (inches) | Adjusted Recorder Scale Factor | Date of Analysis |
| Period 4 | 10069 | 10065 | 6.11 6.12 6.20 5.75 12.36 11.87 | 34 21 2 13 4 10 | 2.48 2.47 2.44 2.63 2.65 2.76 | 29.73 29.75 29.84 29.96 30.10 30.07 | 2.50 2.49 2.45 2.63 2.64 2.75 | August 2, 1961 3 4 5 6 7 |
| Weighted Average R. S. F. (Adjusted) for Period 4 = 2.55 | | | | | | | | |
| Period 5 | 10069 | 10077 | 9.75 9.70 9.53 9.56 9.70 9.87 9.80 9.75 9.80 | 2 1 6 5 3 21 17 12 1 | 3.36 3.38 3.44 3.43 3.38 3.32 3.34 3.36 3.34 | 30.07 30.06 29.91 29.33 29.90 29.97 29.73 29.75 29.90 | 3.35 3.37 3.45 3.45 3.39 3.32 3.37 3.39 3.35 | August 7 8 9 11 13 14 15 16 17 |
| Weighted Average R. S. F. (Adjusted) for Period 5 = 3.37 | | | | | | | | |
| Period 6 | 10069 | 6074 | 5.84 6.23 6.13 | 11 6 7 | 2.28 2.14 2.17 | 29.90 29.36 29.69 | 2.29 2.15 2.19 | August 17 18 19 |
| Weighted Average R. S. F. (Adjusted) for Period 6 = 2.23 | | | | | | | | |

TABLE 3: SUMMARY OF RECORDER SCALE FACTORS

BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|-------------------|-------------------|----------------------|--------------------|----------------------------------|--|--------------------------------|------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor Single Set | Recorder Scale Factor Bar. Press. (inches) | Adjusted Recorder Scale Factor | Date of Analysis |
| Period 7 | 10069 | 6074 | 5.00 | 5 | 2.66 | 29.74 | 2.69 | August 22, 1961 |
| | | | 4.90 | 7 | 2.72 | 29.90 | 2.73 | 23 |
| | | | 4.91 | 7 | 2.71 | 30.02 | 2.71 | 24 |
| | | | 5.24 | 8 | 2.54 | 29.80 | 2.56 | 27 |
| | | | 5.05 | 10 | 2.64 | 29.83 | 2.65 | 28 |
| | | | 5.20 | 41 | 2.56 | 29.82 | 2.57 | 29 |
| | | | 5.05 | 2 | 2.64 | 29.72 | 2.66 | 30 |
| | | | 5.05 | 1 | 2.64 | 29.72 | 2.66 | 31 |
| | | | 5.04 | 9 | 2.64 | 29.80 | 2.66 | September 1 |
| | | | 5.00 | 2 | 2.66 | 29.80 | 2.68 | 2 |
| | | | 5.14 | 23 | 2.59 | 29.47 | 2.64 | 5 |
| | | | 5.00 | 32 | 2.66 | 29.44 | 2.71 | 6 |
| | | | 5.00 | 7 | 2.66 | 29.44 | 2.71 | 7 |
| | | | 5.01 | 8 | 2.66 | 29.50 | 2.70 | 9 |
| | | | 5.00 | 7 | 2.66 | 29.84 | 2.67 | 13 |
| | | | 5.21 | 7 | 2.55 | 29.76 | 2.57 | 15 |
| | | | 5.00 | 4 | 2.66 | 29.89 | 2.67 | 18 |

Weighted Average P. S. F. (Adjusted) for Period 7 = 2.65

TABLE 3: SUMMARY OF RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|-------------------|-------------------|----------------------|--------------------|-----------------------|----------------------|--------------------------------|--------------------|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor | | Adjusted Recorder Scale Factor | Date of Analysis |
| | | | | | Single | Bar. Press. (inches) | | |
| Period 8 | 6074 | 3755 | 3.81 | 5 | 1.45 | 29.39 | 1.45 | September 22, 1961 |
| | | | 3.95 | 1 | 1.40 | 29.43 | 1.43 | 23 |
| | | | 3.60 | 2 | 1.53 | 29.60 | 1.55 | 24 |
| | | | 4.00 | 5 | 1.38 | 30.00 | 1.38 | 25 |
| | | | 4.15 | 1 | 1.33 | 30.05 | 1.33 | 26 |
| | | | 3.98 | 5 | 1.39 | 29.89 | 1.40 | 27 |
| | | | 3.85 | 1 | 1.43 | 29.80 | 1.44 | 28 |
| | | | 3.89 | 4 | 1.42 | 30.04 | 1.42 | 29 |
| | | | 3.89 | 7 | 1.42 | 30.14 | 1.41 | October 1 |
| | | | 3.79 | 11 | 1.46 | 29.76 | 1.47 | 2 |
| | | | 3.79 | 13 | 1.46 | 29.61 | 1.48 | 3 |
| | | | 3.82 | 3 | 1.44 | 29.73 | 1.45 | 4 |
| | | | 4.00 | 3 | 1.38 | 30.19 | 1.37 | 8 |
| | | | 4.00 | 2 | 1.38 | 30.33 | 1.36 | 9 |
| | | | 3.84 | 4 | 1.44 | 30.16 | 1.43 | 10 |
| | | | 3.86 | 3 | 1.43 | 30.08 | 1.43 | 11 |
| | | | 4.00 | 1 | 1.38 | 30.07 | 1.33 | 12 |
| | | | 4.17 | 2 | 1.32 | 29.94 | 1.32 | 13 |
| | | | 3.90 | 2 | 1.41 | 29.90 | 1.41 | 14 |
| | | | 3.90 | 1 | 1.41 | 29.91 | 1.41 | 15 |
| | | | 3.90 | 2 | 1.41 | 29.61 | 1.43 | 16 |
| | | | 3.90 | 2 | 1.41 | 29.65 | 1.43 | 17 |
| | | | 3.90 | 1 | 1.41 | 30.00 | 1.41 | 18 |
| | | | 3.90 | 2 | 1.41 | 29.55 | 1.43 | 19 |
| | | | 3.85 | 3 | 1.43 | 29.57 | 1.45 | 20 |
| | | | 3.90 | 2 | 1.41 | 29.32 | 1.40 | 21 |
| | | | 3.86 | 2 | 1.43 | 29.35 | 1.46 | 22 |

TABLE 3: SUMMARY OF RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|-------------------|-------------------|--|--|--|--|--|---|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor Single Set | Recorder Scale Factor Bar. Press. (inches) | Adjusted Recorder Scale Factor | Date of Analysis |
| Period 8 | 6074 | 3755 | 3.84 3.85 4.00 3.93 3.90 3.93 4.00 3.93 3.95 3.97 3.90 3.97 3.93 3.90 | 7 1 2 2 2 2 2 2 1 2 2 2 2 2 | 1.44 1.43 1.38 1.40 1.41 1.40 1.38 1.40 1.40 1.39 1.41 1.39 1.40 1.41 | 29.67 29.54 29.65 29.73 29.75 29.85 30.18 29.96 29.83 29.91 29.86 29.82 30.05 30.20 | 1.46 1.45 1.40 1.41 1.42 1.41 1.37 1.40 1.41 1.39 1.42 1.40 1.40 1.40 | October 24, 1961 25 26 27 28 29 30 31 November 1 2 3 4 5 6 |
| Period 9 | 6074 | 3756 | 1.10 1.10 1.10 1.10 1.10 | 3 3 2 1 3 | 1.57 1.57 1.57 1.57 1.57 | 29.96 23.66 29.44 29.43 29.34 | 1.57 1.59 1.60 1.60 1.60 | November 8 9 10 11 13 |

Weighted Average R. S. F. (Adjusted) for Period 8 = 1.43

Weighted Average R. S. F. (Adjusted) for Period 9 = 1.59

TABLE 3: SUMMARY OF RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|-------------------|-------------------|--|---|--|--|--|---|
| | Standard Tank No. | Compared Tank No. | Observed Scale Diff. | No. of Comparisons | Recorder Scale Factor Single Set | Bar. Press. (inches) | Adjusted Recorder Scale Factor | Date of Analysis |
| Period 10 | 6074 | 3756 | 1.32 1.35 | 16 20 | 1.31 1.28 | 29.45 30.11 | 1.33 1.27 | November 14, 1961 25 |
| Weighted Average R. S. F. (Adjusted) for Period 10 = 1.29 | | | | | | | | |
| Period 11 | 6074 | 3756 | 1.17 1.17 1.18 1.20 1.14 1.22 1.20 1.20 1.25 1.20 1.20 1.15 1.15 1.15 | 5 7 2 4 5 10 2 4 4 3 1 3 2 1 | 1.48 1.43 1.47 1.44 1.52 1.42 1.44 1.44 1.38 1.44 1.44 1.50 1.50 1.50 | 29.93 29.60 29.76 29.62 29.68 29.82 30.01 30.43 30.46 30.00 29.61 29.87 30.23 30.44 | 1.48 1.50 1.43 1.46 1.54 1.43 1.44 1.42 1.36 1.44 1.45 1.51 1.49 1.48 | November 27 28 29 December 1 2 3 5 7 8 9 10 12 13 16 |

TABLE 4: SUMMARY OF RECORDER SCALE FACTORS - MUTUAL COMPARISON METHOD

BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------------|-------------------|-------------------|--------------------|-------------------------------|------------------------------|--------------------------------|------------------|
| | Standard Tank No. | Compared Tank No. | No. of Comparisons | Scale Factor Weighted Average | Barometric Pressure (inches) | Adjusted Recorder Scale Factor | Date of Analysis |
| Period 12 | 10063 | 3756 | 18 | 1.62 | 30.29 | 1.55 | January 6, 1962 |
| | | | 17 | 1.61 | 30.51 | 1.58 | 7 |
| Weighted Average = 1.56 | | | | | | | |
| Period 13 | 10063 | 10071 | 34 | 2.44 | 30.59 | 2.33 | January 17 |
| | | 10073 | 10 | 2.49 | 30.13 | 2.48 | March 24 |
| | | 10071 | 15 | 2.49 | 29.97 | 2.50 | 26 |
| | | 10068 | 16 | 2.53 | 29.70 | 2.55 | 28 |
| | | 10068 | 20 | 2.51 | 30.25 | 2.49 | 29 |
| | | 6078 | 19 | 2.53 | 30.25 | 2.51 | 29 |
| | | 6078 | 19 | 2.51 | 29.84 | 2.52 | 19 |
| | | 6078 | 20 | 2.51 | 29.34 | 2.51 | 26 |
| | | 10068 | 19 | 2.47 | 30.13 | 2.45 | 28 |
| | | 3757 | 20 | 2.57 | 29.61 | 2.60 | 5 |
| | | 3757 | 20 | 2.54 | 30.00 | 2.54 | 23 |
| | | 3757 | 20 | 2.50 | 29.37 | 2.51 | 7 |
| | | 2427 | 20 | 2.60 | 29.74 | 2.62 | 10 |
| | | 2427 | 20 | 2.50 | 29.89 | 2.51 | 20 |
| | | 2427 | 20 | 2.55 | 29.96 | 2.55 | 11 |
| | | 2426 | 20 | 2.49 | 29.93 | 2.49 | 11 |
| | | 3756 | 20 | 2.43 | 30.01 | 2.49 | 21 |
| | | 3756 | 20 | 2.50 | 30.01 | 2.50 | 7 |
| | | 7351 | 10 | 2.49 | 29.98 | 2.49 | Sept. 4 |
| | | 7351 | 10 | 2.53 | 30.01 | 2.53 | October 9 |
| | | 7351 | 10 | 2.55 | 29.97 | 2.55 | 17 |
| | | 7351 | 10 | 2.56 | 29.96 | 2.56 | 19 |
| Weighted Average = 2.51 | | | | | | | |

TABLE 4: SUMMARY OF RECORDER SCALE FACTORS - MUTUAL COMPARISON METHOD
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------------|-------------------|-------------------|--------------------|-------------------------------|------------------------------|--------------------------------|-------------------|
| | Standard Tank No. | Compared Tank No. | No. of Comparisons | Scale Factor Weighted Average | Barometric Pressure (inches) | Adjusted Recorder Scale Factor | Date of Analysis |
| Period 14 | 10063 | 7351 | 10 | 2.48 | 30.01 | 2.48 | November 13, 1962 |
| | | 7351 | 10 | 2.49 | 29.99 | 2.49 | 28 |
| | | 7351 | 10 | 2.46 | 30.05 | 2.46 | December 7 |
| Weighted Average = 2.48 | | | | | | | |
| Period 15 | 10063 | 10072 | 20 | 2.46 | 30.04 | 2.46 | January 12, 1963 |
| | | 4278 | 16 | 2.43 | 30.06 | 2.42 | February 1 |
| | | 4286 | 19 | 2.53 | 29.77 | 2.55 | March 16 |
| | | 4286 | 20 | 2.49 | 30.33 | 2.46 | April 1 |
| | | 7362 | 20 | 2.47 | 30.34 | 2.46 | 20 |
| | | 7362 | 20 | 2.49 | 29.51 | 2.53 | May 6 |
| | | 7362 | 20 | 2.46 | 29.99 | 2.46 | 18 |
| | | 4284 | 20 | 2.37 | 29.99 | 2.37 | 19 |
| | | 4284 | 20 | 2.33 | 30.06 | 2.32 | June 18 |
| | | 4284 | 20 | 2.33 | 29.93 | 2.33 | 29 |
| | | 4272 | 20 | 2.44 | 29.96 | 2.44 | July 5 |
| | | 3757 | 20 | 2.43 | 30.00 | 2.43 | 6 |
| | | 18204 | 20 | 2.43 | 30.03 | 2.43 | 29 |
| | | 13204 | 19 | 2.41 | 30.10 | 2.40 | August 10 |
| | | 18204 | 19 | 2.40 | 29.97 | 2.40 | 21 |
| Weighted Average = 2.43 | | | | | | | |

Note: For the period November 1-December 31, 1962, a sliding scale factor is used to compute daily air index values at Barrow, Alaska. The sliding recorder scale factors are tabulated in Table 5.

TABLE 5: SUMMARY OF RECORDER SCALE FACTORS - SLIDING RECORD SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Date | Recorder Scale Factor |
|------------------|--------------------------|
| December 1, 1962 | 2.47 |
| 2 | 2.46 |
| 3 | 2.46 |
| 4 | 2.46 |
| 5 | 2.46 |
| 6 | 2.46 |
| 7 | 2.46 |
| 8 | 2.46 |
| 9 | 2.46 |
| 10 | 2.45 |
| 11 | 2.45 |
| 12 | 2.45 |
| 13 | 2.45 |
| 14 | 2.45 |
| 15 | 2.45 |
| 16 | 2.45 |
| 17 | 2.45 |
| 18 | 2.44 |
| 19 | 2.44 |
| 20 | 2.44 |
| 21 | 2.44 |
| 22 | 2.44 |
| 23 | 2.44 |
| 24 | 2.44 |
| 25 | 2.44 |
| 26 | 2.43 |
| 27 | 2.43 |
| 28 | 2.43 |
| 29 | 2.43 |
| 30 | 2.43 |
| 31 | 2.43 |

TABLE 5: SUMMARY OF RECORDER SCALE FACTORS - SLIDING RECORDER SCALE FACTORS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Date | Recorder Scale Factor |
|------------------|--------------------------|
| November 1, 1962 | 2.51 |
| 2 | 2.51 |
| 3 | 2.50 |
| 4 | 2.50 |
| 5 | 2.50 |
| 6 | 2.50 |
| 7 | 2.50 |
| 8 | 2.50 |
| 9 | 2.49 |
| 10 | 2.49 |
| 11 | 2.49 |
| 12 | 2.49 |
| 13 | 2.49 |
| 14 | 2.49 |
| 15 | 2.49 |
| 16 | 2.49 |
| 17 | 2.48 |
| 18 | 2.48 |
| 19 | 2.48 |
| 20 | 2.48 |
| 21 | 2.48 |
| 22 | 2.48 |
| 23 | 2.48 |
| 24 | 2.48 |
| 25 | 2.47 |
| 26 | 2.47 |
| 27 | 2.47 |
| 28 | 2.47 |
| 29 | 2.47 |
| 30 | 2.47 |

TABLE 6: INDEX VALUES OF WORKING REFERENCE GASES
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------|-------------------|-------------------|--|--------|--|--------|----------------------|-------------------|--------------------|
| | Standard Tank No. | Compared Tank No. | Single Set Number of Comparisons | Index | Weighted Average Number of Comparisons | Index | Compared Tank No. | Pressure (PSI) | Date of Analysis |
| | 10063 | 3755 | 5 | 304.82 | 5 | 304.82 | 3755 | 1875 | September 26, 1961 |
| | 10063 | 3756 | 16 | 297.12 | | | | 1600 | November 27 |
| | 10063 | 3756 | 9 | 297.32 | | | | 440 | January 6, 1962 |
| | 10063 | 3756 | 9 | 297.44 | 34 | 297.25 | 3756 | 410 | 7 |
| | 10063 | 10071 | 17 | 319.08 | | | | 1750 | 17 |
| | 10063 | 10071 | 10 | 319.25 | 27 | 319.14 | 10071 | 450 | 26 |
| | 10063 | 10073 | 10 | 298.91 | 10 | 298.91 | 10073 | 420 | 24 |
| | 10063 | 10068 | 10 | 309.05 | | | | 2000 | 28 |
| | 10063 | 10068 | 10 | 309.09 | | | | 500 | 29 |
| | 10063 | 10068 | 9 | 309.35 | 29 | 309.16 | 10068 | 470 | 28 |
| | 10063 | 6078 | 9 | 303.33 | | | | 2000 | 29 |
| | 10063 | 6078 | 10 | 303.56 | | | | 1120 | 19 |
| | 10063 | 6078 | 10 | 303.24 | 29 | 303.38 | 6078 | 740 | 26 |
| | 10063 | 3757 | 10 | 299.26 | | | | 2000 | 5 |
| | 10063 | 3757 | 10 | 299.37 | | | | 1110 | 23 |
| | 10063 | 3757 | 10 | 299.22 | 30 | 299.28 | 3757 | 470 | 7 |
| | 10063 | 2427 | 10 | 297.10 | | | | 1950 | 10 |
| | 10063 | 2427 | 10 | 298.00 | | | | 1500 | 20 |
| | 10063 | 2427 | 10 | 298.07 | 30 | 297.72 | 2427 | 610 | 11 |
| | 10063 | 2426 | 10 | 307.63 | | | | 2100 | 11 |
| | 7351 | 2426 | 10 | 307.41 | 20 | 307.52 | 2426 | 400 | 4 |
| | 10063 | 3756 | 10 | 309.94 | | | | 1900 | 21 |
| | 10063 | 3756 | 10 | 310.06 | 20 | 310.00 | 3756 | 1070 | 7 |
| | 7351 | 2400 | 10 | 311.37 | 10 | 311.37 | 2400 | 850 | 9 |
| | 7351 | 10071 | 10 | 301.84 | | | | 2190 | 19 |

TABLE 6: INDEX VALUES OF WORKING REFERENCE GASES
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------------|-------------------|-----------------------|--------|-----------------------|-------|---------------|----------------|------------------|-------------------|
| Standard Tank No. | Compared Tank No. | Single Set | | Weighted Average | | Compared Tank | | Date of Analysis | |
| | | Number of Comparisons | Index | Number of Comparisons | Index | No. | Pressure (PSI) | | |
| 7351 | 10071 | 10 | 301.29 | | | | | 1095 | November 13, 1962 |
| 7351 | 10071 | 10 | 301.23 | | 30 | 301.47 | 10071 | 500 | 28 |
| 7351 | 10072 | 10 | 314.35 | | | | | 2160 | December 7 |
| 10063 | 10072 | 10 | 315.11 | | 10 | 315.38 | 10072 | 500 | January 12, 1963 |
| 10063 | 4278 | 10 | 314.35 | | 10 | 314.35 | 4278 | 1340 | February 1 |
| 10063 | 4286 | 10 | 314.14 | | | | | 1170 | March 16 |
| 10063 | 4286 | 10 | 314.28 | | 20 | 314.23 | 4286 | 460 | April 1 |
| 10063 | 7362 | 10 | 315.73 | | | | | 1800 | 20 |
| 10063 | 7362 | 10 | 315.69 | | | | | 1100 | 6 |
| 10063 | 7362 | 10 | 315.58 | | 30 | 315.67 | 7362 | 540 | 18 |
| 10063 | 4284 | 10 | 321.70 | | | | | 2130 | 19 |
| 10063 | 4284 | 10 | 321.86 | | | | | 970 | 18 |
| 10063 | 4284 | 10 | 322.11 | | 30 | 321.89 | 4284 | 110 | 29 |
| 10063 | 4272 | 10 | 312.42 | | 10 | 312.42 | 4272 | 1980 | 5 |
| 10063 | 3757 | 10 | 312.43 | | 10 | 312.48 | 3757 | 1920 | 6 |
| 10063 | 18204 | 10 | 314.54 | | | | | 1680 | 29 |
| 10063 | 18204 | 10 | 314.61 | | | | | 1080 | 10 |
| 10063 | 18204 | 9 | 314.52 | | 29 | 314.56 | 18204 | 550 | 21 |

TABLE 7: COMBINED SCRIPPS AND BARROW INDEX VALUES OF WORKING REFERENCE GASES
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | | | | | | | | | | | 2 | 3 | 4 | | 5 | 6 | 7 | | 8 | 9 | 10 | |
|----------|-------------------------|--------|----------------------|--------|----------|------------------|--------|----------|----------------|--|---|---|---|--|---|---|---|--|---|---|----|--|
| Tank No. | At Scripps Prior To Use | | At Scripps After Use | | Pressure | Weighted Average | | Tank No. | Date Use Began | | | | | | | | | | | | | |
| | No. of Compar. | Index | No. of Compar. | Index | | No. of Compar. | Index | | | | | | | | | | | | | | | |
| 10072 | 55 | 299.35 | 10 | 299.30 | 40 | 65 | 299.34 | 10072 | July 10, 1961 | | | | | | | | | | | | | |
| 10064 | 12 | 298.68 | 10 | 298.03 | 100 | 22 | 298.38 | 10064 | 15 | | | | | | | | | | | | | |
| 10065 | 10 | 297.24 | 10 | 297.06 | 250 | 20 | 297.15 | 10065 | 28 | | | | | | | | | | | | | |
| 10077 | 51 | 279.35 | 20 | 280.02 | --- | 71 | 279.53 | 10077 | August 6 | | | | | | | | | | | | | |
| 6074 | 10 | 299.04 | 10 | 298.94 | 600 | 20 | 298.99 | 6074 | 17 | | | | | | | | | | | | | |
| 148 | 13 | 339.32 | 10 | 339.79 | 148 | 23 | 339.52 | 148 | July 10 | | | | | | | | | | | | | |
| 10070 | 11 | 364.75 | --- | --- | --- | 11 | 364.74 | 10070 | 15 | | | | | | | | | | | | | |
| 10069 | 52 | 312.27 | 55 | 312.33 | 390 | 107 | 312.30 | 10069 | August 1 | | | | | | | | | | | | | |

I_o Tank 148 in use:

| | | | | | | | | | |
|-------|----|--------|-----|--------|-----|-----|--------|-------|---------------|
| 10072 | 55 | 299.35 | 10 | 299.30 | 40 | 65 | 299.34 | 10072 | July 10, 1961 |
| 10064 | 12 | 298.68 | 10 | 298.03 | 100 | 22 | 298.38 | 10064 | 15 |
| 10065 | 10 | 297.24 | 10 | 297.06 | 250 | 20 | 297.15 | 10065 | 28 |
| 10077 | 51 | 279.35 | 20 | 280.02 | --- | 71 | 279.53 | 10077 | August 6 |
| 6074 | 10 | 299.04 | 10 | 298.94 | 600 | 20 | 298.99 | 6074 | 17 |
| 148 | 13 | 339.32 | 10 | 339.79 | 148 | 23 | 339.52 | 148 | July 10 |
| 10070 | 11 | 364.75 | --- | --- | --- | 11 | 364.74 | 10070 | 15 |
| 10069 | 52 | 312.27 | 55 | 312.33 | 390 | 107 | 312.30 | 10069 | August 1 |

I_O Tank 148 in use:

**TABLE 7: COMBINED SCRIPPS AND BARROW INDEX VALUES OF WORKING REFERENCE GASES
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------------------------|-------------------------|--------|----------------|--------|----------------------|---------|----------|------------------|--------|----------|--------------------|
| Tank No. | At Scripps Prior To Use | | At Barrow | | At Scripps After Use | | Pressure | Weighted Average | | Tank No. | Date Use Began |
| | No. of Compar. | Index | No. of Compar. | Index | No. of Compar. | Index | | No. of Compar. | Index | | |
| I _O Tank 10063 in use: | | | | | | | | | | | |
| 3755 | 12 | 304.38 | 5 | 304.82 | 10 | 306.13* | 130 | 17 | 304.51 | 3755 | September 21, 1961 |
| 3756 | 13 | 297.15 | 34 | 297.25 | 10 | 297.43 | 390 | 57 | 297.26 | 3756 | November 8 |
| I _{LS} Tank 7351 in use: | | | | | | | | | | | |
| 10071 | 10 | 319.12 | 27 | 319.14 | 10 | 319.29 | 400 | 47 | 319.17 | 10071 | January 10 |
| 10073 | 30 | 298.77 | 10 | 299.91 | 10 | 298.73 | 400 | 50 | 298.99 | 10073 | February 16 |
| 10068 | 21 | 308.80 | 29 | 309.16 | 12 | 309.05 | 450 | 62 | 309.02 | 10068 | March 27 |
| 6078 | 20 | 302.73 | 29 | 303.38 | 10 | 302.96 | 420 | 59 | 303.09 | 6078 | April 30 |
| 3757 | 21 | 298.38 | 30 | 299.28 | 10 | 299.33 | 340 | 61 | 298.98 | 3757 | June 1 |
| 2427 | 26 | 297.36 | 30 | 297.72 | 10 | 297.92 | 280 | 66 | 297.61 | 2427 | July 9 |
| 2426 | 20 | 307.51 | 20 | 307.52 | 10 | 307.68 | 280 | 50 | 307.55 | 2426 | August 15 |
| 3756 | 10 | 310.32 | 20 | 310.00 | 9 | 310.07 | 320 | 39 | 310.10 | 3756 | August 17 |
| 2400 | 113 | 310.94 | 10 | 311.37 | 64 | 311.02 | 510 | 187 | 310.99 | 2400 | October 5 |
| 10071 | 21 | 301.68 | 30 | 301.47 | -- | ----- | --- | 51 | 301.56 | 10071 | October 18 |

* Not used in computation of weighted average

TABLE 7: COMBINED SCRIPPS AND BARROW INDEX VALUES OF WORKING REFERENCE GASES
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-----------------------------------|-------------------------|--------|----------------|--------|----------------------|--------|--------------|---------------------------------|--------|----------|----------------|--------------------|
| Tank No. | At Scripps Prior to Use | | At Barrow | | At Scripps After Use | | Pressure PSI | Weighted Average No. of Compar. | Index | Tank No. | Date Use Began | Scripps Report No. |
| | No. of Compar. | Index | No. of Compar. | Index | No. of Compar. | Index | | | | | | |
| I _o Tank 10063 in use: | | | | | | | | | | | | |
| 10072 | 20 | 314.75 | 10 | 315.11 | 11 | 314.80 | 400 | 41 | 314.85 | 10072 | Dec. 6, 1962 | 5,6 |
| 4278 | 20 | 314.24 | 10 | 314.35 | 6 | 314.24 | 400 | 36 | 314.27 | 4278 | Jan. 13, 1963 | 5,6 |
| *4286 | 20 | 314.74 | 20 | 314.23 | -- | ----- | --- | 40 | 314.48 | 4286 | Feb. 28 | 5,- |
| *7362 | 19 | 315.39 | 30 | 315.67 | -- | ----- | --- | 49 | 315.56 | 7362 | April 2 | 5,- |
| 4284 | 20 | 321.72 | 30 | 321.89 | 11 | 322.33 | 220 | 61 | 321.91 | 4284 | May 19 | 5,7 |
| 3757 | 21 | 312.25 | 10 | 312.48 | 10 | 312.21 | 490 | 41 | 312.30 | 3757 | July 1 | 5,7 |
| 4272 | 24 | 312.26 | 10 | 312.42 | 10 | 312.18 | 900 | 44 | 312.28 | 4272 | July 6 | 6,7 |
| 18204 | 21 | 314.39 | 29 | 314.56 | 10 | 314.50 | 330 | 60 | 314.49 | 18204 | July 24 | 6,7 |

* Tank returned to S.I.O. empty

**TABLE 8: COMPARISON OF SCRIPPS AND BARROW INDEX VALUES OF WORKING REFERENCE GASES
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Tank No. | Col: 1 2 3 4 5 6 7 | | | | | | |
|-------------|-----------------------------------|--------|-------------------|--------|----------------------------------|--------------------|--|
| | At Scripps Prior and After Use | | At Barrow | | Index Difference BRW - SIO | Date Use Began | |
| | No. of Compar. | Index | No. of Compar. | Index | | | |
| 3755 | 22 | 304.38 | 5 | 304.82 | 0.44 | September 21, 1961 | |
| 3756 | 23 | 297.27 | 34 | 297.25 | -0.02 | November 8 | |
| 10071 | 20 | 319.20 | 27 | 319.14 | 0.06 | January 10, 1962 | |
| 10073 | 40 | 298.76 | 10 | 298.91 | 0.15 | February 16 | |
| 10068 | 33 | 308.89 | 29 | 309.16 | 0.27 | March 27 | |
| 5078 | 30 | 302.61 | 29 | 303.38 | 0.57 | April 30 | |
| 3757 | 31 | 296.69 | 30 | 299.28 | 0.59 | June 1 | |
| 2427 | 36 | 297.51 | 30 | 297.72 | 0.21 | July 9 | |
| 2426 | 30 | 307.57 | 20 | 307.52 | -0.05 | August 15 | |
| 3756 | 19 | 310.20 | 20 | 310.00 | -0.20 | August 17 | |
| 2400 | 177 | 310.97 | 10 | 311.37 | 0.40 | October 5 | |
| 10071 | 21 | 301.68 | 30 | 301.47 | -0.21 | October 18 | |
| 10072 | 31 | 314.77 | 10 | 315.38 | 0.61 | December 6 | |
| 4278 | 26 | 314.24 | 10 | 314.35 | 0.11 | January 13, 1963 | |
| 4286 | 20 | 314.74 | 20 | 314.23 | -0.51 | February 28 | |
| 7362 | 19 | 315.39 | 30 | 315.67 | 0.28 | April 2 | |
| 4284 | 31 | 321.94 | 30 | 321.89 | -0.05 | May 19 | |
| 3757 | 31 | 312.24 | 10 | 312.48 | 0.24 | July 1 | |
| 4272 | 34 | 312.24 | 10 | 312.42 | 0.18 | July 6 | |
| 18204 | 31 | 314.42 | 10 | 314.56 | 0.14 | 24 | |

TABLE 9: SCRIPPS INDEX VALUES OF PRINCIPAL REFERENCE GASES
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-----------|----------|----------------|-------|------------------|------------|----------------|-------|------------------|------------|------------------|-------|------|
| Tank Rank | Tank No. | At Scripps | | Prior To Use | | At Scripps | | After Use | | Weighted Average | | Date |
| | | No. of Compar. | Index | Date of Last Run | Report No. | No. of Compar. | Index | Date of Last Run | Report No. | No. of Compar. | Index | |

1961 Thru 1963

| | | | | | | | | | | | | |
|-----------------|-------|-----|--------|----------|-----|----|--------|----------|-----|-----|--------|---------------------|
| I | 10063 | 50 | 310.57 | 4/13/61 | IV | 52 | 310.31 | 3/13/64 | VII | 102 | 310.44 | 9/26/61 to |
| I _{HS} | 148 | 13 | 339.32 | 4/19/61 | IV | 10 | 339.79 | 9/14/61 | IV | 23 | 339.52 | 10/31/63 to 7/10/61 |
| I _{HS} | 10070 | 11 | 364.75 | 11/19/60 | III | -- | ----- | ----- | IV | 11 | 364.74 | 7/15/61 to 7/15/61 |
| II | 10069 | 52 | 312.27 | 4/19/61 | IV | 55 | 312.33 | 4/11/62 | V | 107 | 312.30 | 7/31/61 to 8/2/61 |
| II | 6074 | 10 | 299.04 | 4/13/60 | IV | 10 | 298.94 | 4/12/62 | V | 20 | 298.99 | 9/18/61 to 8/17/61 |
| I _{HS} | 4291 | 133 | 335.19 | 4/61 | IV | 31 | 335.28 | 10/16/62 | V | 164 | 335.21 | 1/5/62 to 1/6/62 |
| I _{LS} | 7351 | 124 | 273.35 | 4/61 | IV | 52 | 272.92 | 3/19/64 | VII | 176 | 273.22 | 6/1/63 to 6/1/62 |
| I _{HS} | 4283 | 115 | 343.07 | 1/62 | VI | 50 | 342.92 | 3/17/64 | VII | 165 | 343.02 | 5/18/63 to 5/19/63 |
| | | | | | | | | | | | | 7/1/63 to |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|----------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) |
| | | | | | | | No. | Index | | |
| 1961 | | | | | | | | | | |
| July 10 | -10.29 | 29 | 29.90 | -10.32 | 2.55 | -26.32 | 148 | 339.52 | 313.20 | 313.57 |
| 11 | - 9.86 | 32 | 29.72 | - 9.95 | | -25.37 | | | 314.15 | 314.73 |
| 12 | -10.87 | 38 | 29.85 | -10.92 | | -27.85 | | | 312.67 | 312.92 |
| 13 | -10.26 | 43 | 30.17 | -10.20 | | -26.01 | | | 313.51 | 313.95 |
| 14 | -10.24 | 7 | 30.11 | -10.20 | | -26.01 | | | 313.51 | 313.95 |
| 15 | -12.57 | 20 | 29.73 | -12.68 | 4.23 | -53.64 | 10070 | 364.74 | 311.10 | 311.01 |
| 16 | -12.52 | 44 | 29.79 | -12.61 | | -53.34 | | | 311.40 | 311.33 |
| 17 | -12.46 | 29 | 29.72 | -12.57 | | -53.17 | | | 311.57 | |
| 17 | 2.67 | 14 | 29.72 | 2.69 | | 11.38 | 10064 | 298.38 | 309.76 | |
| | | | | July 17 Average | | | | | 310.66 | 310.47 |
| 19 | 3.15 | 42 | 29.70 | 3.18 | | 13.45 | | | 311.83 | 311.90 |
| 20 | 3.08 | 37 | 29.58 | 3.12 | | 13.20 | | | 311.58 | |
| 20 | -12.45 | 8 | 29.58 | -12.62 | | -53.38 | 10070 | 364.74 | 311.36 | |
| | | | | July 20 Average | | | | | 311.47 | 311.46 |
| 21 | -12.49 | 6 | 29.65 | -12.63 | | -53.42 | | | 311.32 | |
| 21 | 3.20 | 42 | 29.65 | 3.23 | | 13.66 | 10064 | 298.38 | 312.04 | |
| | | | | July 21 Average | | | | | 311.68 | 311.72 |
| 22 | 3.24 | 46 | 29.88 | 3.25 | | 13.75 | | | 312.13 | 312.27 |
| 23 | 2.36 | 4 | 29.99 | 2.36 | | 9.98 | | | 308.36 | |
| 23 | -13.13 | 13 | 29.99 | -13.13 | | -55.54 | 10070 | 364.74 | 309.20 | |
| | | | | July 23 Average | | | | | 308.78 | 308.18 |
| 24 | -13.15 | 2 | 29.94 | -13.18 | 4.23 | -55.75 | 10070 | 364.74 | 308.99 | |
| 24 | 2.67 | 43 | 29.94 | 2.67 | | 11.29 | 10064 | 298.38 | 309.67 | |
| | | | | July 24 Average | | | | | 309.33 | 308.85 |
| 25 | 2.67 | 47 | 29.97 | 2.67 | | 11.29 | | | 309.67 | 309.27 |

[illegible][illegible]

**TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|----------------------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Reference Tank Index | Air Index | Manometric Conc. (ppm) |
| 1961 | | | | | | | | | | |
| Aug. 7 | 11.17 | 25 | 30.08 | 11.14 | | 28.41 | | | 307.94 | |
| 7 | - 1.36 | 11 | 30.08 | - 1.35 | 3.37 | - 4.55 | 10069 | 312.30 | 307.75 | |
| 8 | 8.47 | 47 | 30.06. | Aug. 7 Average | | | | | 307.84 | 307.04 |
| 11 | 8.51 | 4 | 29.82 | 8.45 | | 28.48 | 10077 | 279.53 | 308.01 | 307.24 |
| 11 | - 1.17 | 5 | 29.82 | 8.56 | | 28.85 | | | 308.38 | |
| | | | | - 1.18 | | - 3.98 | 10069 | 312.30 | 308.32 | |
| 14 | - 1.22 | 20 | 29.98 | Aug. 11 Average | 3.37 | - 4.11 | 10069 | 312.30 | 308.35 | 307.66 |
| 14 | 8.37 | 15 | 29.98 | - 1.22 | | 28.21 | 10077 | 279.53 | 307.74 | |
| | | | | 8.37 | | | | | 307.96 | |
| 15 | - 1.71 | 16 | 29.76 | Aug. 14 Average | | - 5.80 | 10069 | 312.30 | 306.50 | 307.18 |
| 16 | - 2.28 | 13 | 29.73 | - 1.72 | | - 7.75 | | | 304.55 | 305.40 |
| 16 | 8.29 | 31 | 29.73 | - 2.30 | | 28.17 | 10077 | 279.53 | 307.70 | |
| | | | | 8.36 | | | | | 306.12 | 304.94 |
| 17 | 8.78 | 29 | 29.89 | Aug. 16 Average | | 29.69 | | | 309.22 | 308.72 |
| 18 | 3.71 | 37 | 29.91 | 8.81 | 2.23 | 8.29 | 6074 | 298.99 | 307.28 | |
| 18 | - 3.53 | 6 | 29.91 | 3.72 | | - 7.89 | 10069 | 312.30 | 304.41 | |
| | | | | - 3.54 | | | | | 305.84 | 304.60 |
| 19 | - 2.82 | 7 | 29.65 | Aug. 18 Average | | - 6.35 | | | 305.95 | |
| 19 | 5.86 | 20 | 29.65 | - 2.85 | | 13.20 | 6074 | 298.99 | 312.19 | |
| | | | | 5.92 | | | | | 309.07 | 308.54 |
| 21 | - 2.11 | 14 | 29.63 | Aug. 19 Average | 2.65 | - 5.64 | 10069 | 312.30 | 306.66 | 305.60 |
| 22 | - 1.83 | 5 | 29.72 | - 2.13 | | - 4.90 | | | 307.40 | |
| 22 | 3.11 | 43 | 29.72 | - 1.85 | | 8.32 | 6074 | 298.99 | 307.31 | 306.44 |
| | | | | 3.14 | | | | | 307.35 | |
| | | | | Aug. 22 Average | | | | | | |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 2 3 4 5 6 7 8 9 10 11 | | | | | | | | | | |
|------------------------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Index | Air Index | Manometric Conc. (ppm) |
| 1961 | | | | | | | | | | |
| Aug. 23 | 3.39 | 41 | 29.90 | 3.40 | 2.65 | 9.01 | 6074 | 298.99 | 308.00 | |
| 23 | -1.71 | 6 | 29.90 | -1.71 | | -4.53 | 10069 | 312.30 | 307.77 | |
| 24 | 3.67 | 23 | 30.02 | 3.67 | | 9.72 | 6074 | 298.99 | 308.71 | 307.09 |
| 24 | -1.68 | 6 | 30.02 | -1.68 | | -1.45 | 10069 | 312.30 | 310.85 | |
| 27 | -1.71 | 7 | 29.81 | -1.72 | | -4.56 | | | 309.78 | 309.40 |
| 28 | -1.80 | 10 | 29.88 | -1.81 | | -4.80 | | | 307.74 | 306.92 |
| 29 | -1.84 | 40 | 29.84 | -1.85 | | -4.90 | | | 307.50 | 306.62 |
| 30 | 3.35 | 46 | 29.71 | 3.38 | | 8.96 | 6074 | 298.99 | 307.95 | 306.50 |
| 31 | 3.54 | 38 | 29.70 | 3.58 | | 9.49 | | | 307.82 | 307.17 |
| Sept. 1 | 3.57 | 4 | 29.82 | 3.59 | | 9.51 | | | 308.50 | 307.82 |
| 1 | -1.60 | 9 | 29.82 | -1.61 | | -4.27 | 10069 | 312.30 | 308.03 | |
| 2 | 3.90 | 21 | 29.74 | 3.93 | | 10.41 | 6074 | 298.99 | 308.26 | 307.55 |
| 5 | 4.59 | 44 | 29.45 | 4.67 | | 12.37 | | | 309.40 | 308.94 |
| 6 | 6.28 | 32 | 29.45 | 6.39 | | 16.93 | | | 311.36 | 311.33 |
| 7 | 3.72 | 18 | 29.45 | 3.79 | | 10.04 | | | 315.92 | 316.88 |
| 7 | -1.39 | 8 | 23.45 | -1.41 | | -3.74 | 10069 | 312.30 | 308.56 | |
| 9 | -1.45 | 8 | 30.08 | -1.44 | 2.65 | -3.82 | 10069 | 312.30 | 308.79 | 308.20 |
| 9 | 3.56 | 37 | 30.08 | 3.55 | | 9.41 | 6074 | 298.99 | 308.48 | |
| 10 | 3.54 | 27 | 30.04 | 3.53 | | 9.35 | | | 308.44 | 307.77 |
| 13 | 3.76 | 14 | 29.82 | 3.78 | | 10.02 | | | 308.34 | 307.65 |
| 13 | -1.40 | 10 | 29.82 | -1.41 | | -3.74 | 10069 | 312.30 | 308.56 | |
| | | | | Sept. 13 Average | | | | | 308.78 | 308.18 |

**TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col: 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|----------------|--------|-----------|------------------------|--------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) | |
| | | | | | | | No. | Index | | | |
| 1961 | | | | | | | | | | | |
| Sept. 14 | -1.53 | 30 | 29.78 | -1.54 | | -4.08 | | | | 308.22 | 307.50 |
| 15 | -1.25 | 42 | 29.67 | -1.26 | | -3.34 | | | | 308.96 | 308.40 |
| 16 | -1.25 | 44 | 29.75 | -1.26 | | -3.34 | | | | 308.96 | 308.40 |
| 17 | -1.16 | 17 | 29.91 | -1.16 | | -3.07 | | | | 309.23 | 308.73 |
| 18 | -1.52 | 18 | 29.73 | -1.53 | | -4.05 | | | | 308.25 | 307.54 |
| 21 | 4.20 | 15 | 29.78 | 4.23 | 1.43 | 6.05 | 3755 | 304.51 | | 310.56 | 310.35 |
| 22 | 4.63 | 39 | 29.83 | 4.65 | | 6.65 | | | | 310.56 | 310.35 |
| 23 | 4.97 | 38 | 29.44 | 5.06 | | 7.23 | | | | 311.74 | 311.79 |
| 24 | 4.30 | 48 | 29.66 | 4.35 | | 6.22 | | | | 310.73 | 310.56 |
| 25 | 3.80 | 48 | 29.98 | 3.80 | | 5.43 | | | | 309.94 | 309.60 |
| 26 | 5.67 | 42 | 30.07 | 5.65 | | 8.08 | | | | 312.59 | 312.83 |
| 27 | 7.31 | 47 | 29.88 | 7.34 | | 10.50 | | | | 315.01 | 315.78 |
| 28 | 5.60 | 47 | 29.81 | 5.63 | | 8.05 | | | | 312.50 | 312.79 |
| 29 | 5.22 | 46 | 29.98 | 5.22 | | 7.46 | | | | 311.97 | 312.07 |
| 30 | 4.15 | 23 | 30.19 | 4.12 | 1.43 | 5.89 | 3755 | 304.51 | | 310.40 | 310.16 |
| Oct. 1 | 4.17 | 18 | 30.15 | 4.15 | | 5.93 | | | | 310.44 | 310.21 |
| 2 | 4.25 | 47 | 29.90 | 4.26 | | 6.09 | | | | 310.60 | 310.40 |
| 3 | 4.24 | 48 | 29.64 | 4.29 | | 6.13 | | | | 310.64 | 310.45 |
| 4 | 4.52 | 47 | 29.76 | 4.56 | | 6.52 | | | | 311.03 | 310.93 |
| 8 | 5.30 | 47 | 30.18 | 5.27 | | 7.54 | | | | 312.05 | 312.17 |
| 9 | 5.61 | 48 | 30.31 | 5.55 | | 7.94 | | | | 312.45 | 312.56 |
| 10 | 5.78 | 46 | 30.18 | 5.74 | | 8.21 | | | | 312.72 | 312.98 |
| 11 | 5.51 | 46 | 30.09 | 5.49 | | 7.85 | | | | 312.36 | 312.55 |
| 12 | 4.87 | 46 | 30.06 | 4.86 | | 6.95 | | | | 311.46 | 311.45 |
| 13 | 5.46 | 28 | 29.95 | 5.46 | | 7.81 | | | | 312.32 | 312.50 |
| 14 | 7.20 | 24 | 29.89 | 7.22 | | 10.32 | | | | 314.83 | 315.56 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|----------------|--------|-----------|------------------------|----|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) | |
| | | | | | | | No. | Index | | | |
| 1961 | | | | | | | | | | | |
| Oct. 15 | 6.28 | 17 | 29.80 | 6.32 | 1.43 | 9.04 | 3755 | 304.51 | 313.55 | 314.00 | |
| 16 | 7.30 | 45 | 29.62 | 7.39 | | 10.57 | | | 315.08 | 315.86 | |
| 17 | 6.28 | 39 | 29.66 | 6.35 | | 9.08 | | | 313.59 | 314.04 | |
| 18 | 7.29 | 43 | 29.94 | 7.30 | | 10.44 | | | 314.95 | 315.70 | |
| 19 | 8.06 | 48 | 29.55 | 8.18 | | 11.70 | | | 316.21 | 317.24 | |
| 20 | 7.36 | 44 | 29.55 | 7.47 | | 10.68 | | | 315.19 | 315.99 | |
| 21 | 9.15 | 47 | 29.35 | 9.35 | | 13.37 | | | 317.88 | 319.27 | |
| 22 | 9.91 | 45 | 29.36 | 10.12 | | 14.47 | | | 318.98 | 320.61 | |
| 23 | 9.16 | 23 | 29.56 | 9.29 | | 13.28 | | | 317.79 | 319.16 | |
| 24 | 9.80 | 40 | 29.65 | 9.91 | | 14.17 | | | 318.68 | 320.25 | |
| 25 | 9.10 | 36 | 29.55 | 9.24 | | 13.21 | | | 317.72 | 319.08 | |
| 26 | 7.06 | 47 | 29.66 | 7.14 | | 10.21 | | | 314.72 | 315.42 | |
| 27 | 7.37 | 46 | 29.78 | 7.42 | | 10.61 | | | 315.12 | 315.91 | |
| 28 | 8.06 | 44 | 29.73 | 8.13 | | 11.62 | | | 316.13 | 317.14 | |
| 29 | 7.76 | 44 | 29.88 | 7.79 | | 11.14 | | | 315.65 | 316.56 | |
| 30 | 8.24 | 47 | 30.14 | 8.20 | | 11.73 | | | 316.24 | 317.27 | |
| 31 | 8.23 | 47 | 29.96 | 8.24 | | 11.78 | | | 316.29 | 317.33 | |
| Nov. 1 | 8.09 | 45 | 29.85 | 8.13 | | 11.62 | | | 316.13 | 317.14 | |
| 2 | 8.41 | 48 | 29.90 | 8.43 | | 12.05 | | | 316.56 | 317.66 | |
| 3 | 9.15 | 47 | 29.85 | 9.19 | | 13.14 | | | 317.65 | 318.99 | |
| 4 | 8.08 | 38 | 29.82 | 8.13 | | 11.62 | | | 316.13 | 317.14 | |
| 5 | 6.62 | 19 | 30.02 | 6.61 | | 9.45 | | | 313.96 | 314.50 | |
| 6 | 6.81 | 44 | 30.22 | 6.75 | | 9.65 | | | 314.16 | 314.74 | |
| 7 | 7.08 | 42 | 30.05 | 7.06 | | 10.09 | | | 314.60 | 315.23 | |
| 8 | 7.04 | 21 | 29.94 | 7.05 | 1.59 | 11.21 | 3756 | 297.26 | 308.47 | | |
| 8 | 10.81 | 11 | 29.94 | 10.83 | | 17.22 | | | 314.48 | | |
| Nov. 8 Average | | | | | | | | | | 311.46 | |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Index | Air Index | Manometric Conc. (ppm) |
| 1961 | | | | | | | | | | |
| Nov. 9 | 10.89 | 48 | 29.64 | 11.02 | 1.59 | 17.52 | 3756 | 297.26 | 314.78 | 315.49 |
| 10 | 11.54 | 46 | 29.44 | 11.76 | | 18.70 | | | 315.96 | 316.93 |
| 11 | 11.39 | 43 | 29.42 | 11.61 | | 18.46 | | | 315.72 | 316.64 |
| 12 | 11.50 | 21 | 29.36 | 11.74 | | 18.67 | | | 315.93 | 316.90 |
| 13 | 11.10 | 42 | 29.37 | 11.33 | | 18.01 | | | 315.27 | 316.09 |
| 14 | 11.21 | 20 | 29.49 | 11.40 | 1.29 | 14.71 | | | 311.97 | |
| 14 | 12.94 | 13 | 29.49 | 13.16 | | 16.98 | | | 314.24 | |
| | | | | Nov. 14 Average | | | | | 313.10 | 313.45 |
| 25 | 14.33 | 29 | 30.11 | 14.07 | | 18.15 | | | 315.41 | 316.26 |
| 27 | 12.91 | 35 | 29.89 | 12.95 | 1.46 | 18.91 | | | 316.17 | 317.19 |
| 28 | 12.72 | 38 | 29.62 | 12.87 | | 18.79 | | | 316.05 | 317.04 |
| 29 | 13.10 | 46 | 29.77 | 13.19 | | 19.26 | | | 316.52 | 317.62 |
| Dec. 1 | 12.42 | 25 | 29.60 | 12.58 | | 18.37 | | | 315.63 | 316.50 |
| 2 | 12.52 | 42 | 29.68 | 12.64 | | 18.45 | | | 315.71 | 316.53 |
| 3 | 12.61 | 42 | 29.75 | 12.71 | | 18.56 | | | 315.82 | 316.76 |
| 4 | 12.60 | 44 | 29.83 | 12.66 | | 18.48 | | | 315.74 | 316.66 |
| 5 | 13.11 | 36 | 30.02 | 13.10 | | 19.13 | | | 316.39 | 317.46 |
| 6 | 13.17 | 17 | 30.22 | 13.06 | | 19.07 | | | 316.33 | 317.33 |
| 7 | 13.34 | 42 | 30.40 | 13.15 | | 19.20 | | | 316.46 | 317.54 |
| 8 | 13.10 | 29 | 30.51 | 12.88 | | 18.80 | | | 316.06 | 317.05 |
| 9 | 12.71 | 21 | 30.05 | 12.68 | | 18.51 | | | 315.77 | 316.70 |
| 10 | 12.68 | 19 | 29.81 | 12.76 | | 18.63 | | | 315.89 | 316.85 |
| 12 | 12.95 | 43 | 29.84 | 13.01 | | 18.99 | | | 316.25 | 317.29 |
| 13 | 13.29 | 14 | 30.20 | 13.20 | | 19.27 | | | 316.53 | 317.63 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|----------------------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Reference Tank Index | Air Index | Manometric Conc. (ppm) |
| 1962 | | | | | | | | | | |
| Jan. 3 | 12.72 | 14 | 29.75 | 12.82 | 1.56 | 20.00 | 3756 | 297.26 | 317.26 | 318.52 |
| 4 | 13.52 | 48 | 29.93 | 13.55 | | 21.14 | | | 318.40 | 319.91 |
| 5 | 14.38 | 29 | 30.22 | 14.26 | | 22.24 | | | 319.50 | 321.25 |
| 7 | 11.37 | 24 | 30.43 | 11.20 | | 17.47 | | | 314.73 | 315.43 |
| 10 | 0.99 | 23 | 29.80 | 0.99 | 2.51 | 2.48 | 10071 | 319.17 | 321.65 | 323.87 |
| 11 | 0.98 | 41 | 30.26 | 0.97 | | 2.43 | | | 321.60 | 323.81 |
| 12 | 1.03 | 42 | 30.05 | 1.03 | | 2.58 | | | 321.75 | 323.99 |
| 13 | 1.00 | 46 | 29.80 | 1.01 | | 2.53 | | | 321.70 | 323.93 |
| 14 | 0.95 | 47 | 29.87 | 0.95 | | 2.38 | | | 321.55 | 323.74 |
| 15 | 0.82 | 43 | 30.12 | 0.82 | | 2.06 | | | 321.23 | 323.35 |
| 16 | 1.00 | 44 | 30.41 | 0.99 | | 2.48 | | | 321.65 | 323.87 |
| 17 | 0.89 | 30 | 30.49 | 0.87 | | 2.18 | | | 321.35 | 323.64 |
| 18 | 1.11 | 43 | 30.33 | 1.10 | | 2.76 | | | 321.93 | 324.21 |
| 19 | 1.17 | 47 | 30.17 | 1.16 | | 2.91 | | | 322.08 | 324.39 |
| 20 | 0.81 | 46 | 30.26 | 0.80 | | 2.01 | | | 321.18 | 323.29 |
| 21 | 0.63 | 46 | 29.81 | 0.63 | | 1.58 | | | 320.75 | 322.77 |
| 22 | 0.15 | 40 | 29.93 | 0.15 | | 0.38 | | | 319.55 | 321.31 |
| 23 | 0.59 | 47 | 29.96 | 0.59 | | 1.48 | | | 320.65 | 322.65 |
| 24 | 0.15 | 44 | 30.31 | 0.15 | | 0.38 | | | 319.55 | 321.31 |
| 25 | 0.20 | 46 | 30.66 | 0.20 | | 0.52 | | | 319.67 | 321.45 |
| 26 | 0.29 | 34 | 30.61 | 0.28 | | 0.70 | | | 319.87 | 321.70 |
| 27 | 0.41 | 48 | 30.56 | 0.40 | | 1.00 | | | 320.17 | 322.06 |
| 28 | 0.03 | 39 | 30.52 | 0.03 | | 0.07 | | | 319.24 | 320.93 |
| 29 | 0.31 | 36 | 30.46 | 0.30 | | 0.75 | | | 319.92 | 321.76 |
| 30 | 0.59 | 45 | 29.86 | 0.59 | | 1.48 | | | 320.65 | 322.65 |
| 31 | 0.68 | 47 | 29.61 | 0.69 | | 1.73 | | | 320.90 | 322.95 |

**TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT**

[illegible]

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col. 1 Day of Month | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 9 | 10 | 11 |
|---------------------------|------------|-------------|------------|----------------|----------|------------|-----------|------------|--------|--------|-------|
| | | | | | | | Reference | Manometric | | | |
| | Observed | Number of | Barometric | Adjusted Scale | Recorder | Computed | No. | Conc. | Index | Index | (ppm) |
| | Scale | Comparisons | Pressure | Difference | Scale | Index | | | | | |
| | Difference | | (inches) | | Factor | Difference | | | | | |
| 1962 | | | | | | | | | | | |
| Feb. 25 | 7.54 | 47 | 30.07 | 7.52 | 2.51 | 18.87 | 10073 | 298.99 | 317.86 | 319.25 | |
| 26 | 7.67 | 46 | 30.38 | 7.57 | | 19.00 | | | 317.99 | 319.41 | |
| 27 | 7.36 | 47 | 30.38 | 7.26 | | 18.22 | | | 317.21 | 318.46 | |
| 28 | 7.44 | 43 | 30.27 | 7.37 | | 18.50 | | | 317.49 | 318.80 | |
| March 1 | 7.41 | 42 | 30.07 | 7.39 | | 18.55 | | | 317.54 | 318.86 | |
| 2 | 7.49 | 46 | 29.93 | 7.50 | | 18.82 | | | 317.81 | 319.19 | |
| 3 | 7.53 | 47 | 30.19 | 7.48 | | 18.77 | | | 317.76 | 319.11 | |
| 4 | 7.46 | 47 | 30.18 | 7.41 | | 18.60 | | | 317.59 | 318.92 | |
| 5 | 7.72 | 47 | 29.95 | 7.73 | | 19.40 | | | 318.39 | 319.89 | |
| 6 | 7.55 | 47 | 29.99 | 7.55 | | 18.95 | | | 317.94 | 319.35 | |
| 7 | 7.59 | 33 | 30.11 | 7.56 | | 18.97 | | | 317.96 | 319.37 | |
| 8 | 7.50 | 6 | 30.11 | 7.47 | | 18.75 | | | 317.74 | 319.10 | |
| 9 | 7.34 | 9 | 30.38 | 7.24 | | 18.17 | | | 317.16 | 318.40 | |
| 10 | 7.83 | 26 | 30.89 | 7.60 | | 19.08 | | | 318.07 | 319.50 | |
| 11 | 7.72 | 47 | 30.86 | 7.50 | | 18.82 | | | 317.81 | 319.19 | |
| 12 | 7.27 | 19 | 30.49 | 7.15 | | 17.95 | | | 316.94 | 318.13 | |
| 13 | 7.20 | 45 | 30.22 | 7.14 | | 17.92 | | | 316.91 | 318.09 | |
| 14 | 7.42 | 47 | 30.32 | 7.34 | | 18.42 | | | 317.41 | 318.70 | |
| 15 | 7.48 | 48 | 30.62 | 7.32 | | 18.37 | | | 317.36 | 318.64 | |
| 16 | 7.50 | 33 | 30.64 | 7.34 | | 18.42 | | | 317.41 | 318.70 | |
| 17 | 7.52 | 12 | 30.35 | 7.43 | | 18.65 | | | 317.64 | 318.98 | |
| 18 | 7.50 | 48 | 30.29 | 7.42 | | 18.62 | | | 317.61 | 318.94 | |
| 19 | 7.59 | 48 | 30.52 | 7.45 | | 18.70 | | | 317.69 | 319.04 | |
| 20 | 7.61 | 47 | 30.46 | 7.49 | | 18.80 | | | 317.79 | 319.16 | |
| 21 | 7.54 | 45 | 30.53 | 7.40 | | 18.57 | | | 317.56 | 318.88 | |

**TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Index | Air Index | Manometric Conc. (ppm) |
| 1962 | | | | | | | | | | |
| March 22 | 7.65 | 48 | 30.40 | 7.54 | 2.51 | 18.92 | 10073 | 298.99 | 317.91 | 319.31 |
| 23 | 7.61 | 46 | 30.30 | 7.53 | | 18.90 | | | 317.89 | 319.28 |
| 24 | 7.57 | 30 | 30.13 | 7.53 | | 18.90 | | | 317.89 | 319.28 |
| 27 | 3.43 | 12 | 29.67 | 3.47 | | 8.71 | 10068 | 309.02 | 317.73 | 319.09 |
| 28 | 3.27 | 23 | 29.69 | 3.30 | | 8.28 | | | 317.30 | 318.57 |
| 29 | 3.34 | 40 | 29.88 | 3.35 | | 8.41 | | | 317.43 | 318.72 |
| 30 | 3.42 | 39 | 30.21 | 3.40 | | 8.53 | | | 317.55 | 318.87 |
| 31 | 3.38 | 46 | 30.17 | 3.36 | | 8.43 | | | 317.45 | 318.75 |
| April 1 | 3.45 | 47 | 30.39 | 3.40 | | 8.53 | | | 317.55 | 318.87 |
| 2 | 3.32 | 45 | 30.40 | 3.27 | | 8.21 | | | 317.23 | 318.48 |
| 3 | 3.45 | 42 | 30.39 | 3.40 | | 8.53 | | | 317.55 | 318.87 |
| 4 | 3.16 | 47 | 30.55 | 3.10 | | 7.78 | | | 316.80 | 317.96 |
| 5 | 3.45 | 45 | 30.33 | 3.41 | | 8.56 | | | 317.58 | 318.91 |
| 6 | 3.49 | 45 | 29.64 | 3.53 | | 8.86 | | | 317.88 | 319.27 |
| 7 | 3.52 | 46 | 29.72 | 3.55 | | 8.91 | | | 317.93 | 319.33 |
| 8 | 3.56 | 43 | 29.91 | 3.57 | | 8.96 | | | 317.98 | 319.39 |
| 9 | 3.89 | 43 | 29.84 | 3.91 | | 9.81 | | | 318.83 | 320.43 |
| 10 | 3.54 | 48 | 29.78 | 3.56 | | 8.93 | | | 317.95 | 319.36 |
| 11 | 3.39 | 37 | 30.16 | 3.37 | | 8.46 | | | 317.48 | 318.79 |
| 12 | 3.60 | 48 | 30.35 | 3.56 | | 8.93 | | | 317.95 | 319.36 |
| 13 | 3.48 | 48 | 30.12 | 3.47 | | 8.71 | | | 317.73 | 319.09 |
| 14 | 3.51 | 32 | 29.90 | 3.52 | | 8.83 | | | 317.85 | 319.24 |
| 15 | 3.57 | 44 | 30.03 | 3.57 | | 8.96 | | | 317.98 | 319.39 |
| | | | | | | 0.02 | | | 317.08 | 319.39 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Index | Air Index | Manometric Conc. (ppm) |
| 1962 | | | | | | | | | | |
| April 18 | 3.70 | 48 | 30.16 | 3.68 | 2.51 | 9.24 | 10068 | 309.02 | 318.26 | 319.74 |
| 19 | 3.65 | 33 | 30.02 | 3.65 | | 9.16 | | | 318.18 | 319.64 |
| 20 | 3.53 | 40 | 30.08 | 3.52 | | 8.83 | | | 317.85 | 319.24 |
| 21 | 3.56 | 45 | 30.26 | 3.53 | | 8.86 | | | 317.88 | 319.27 |
| 22 | 3.71 | 46 | 30.09 | 3.70 | | 9.29 | | | 318.31 | 319.80 |
| 23 | 3.64 | 33 | 29.91 | 3.65 | | 9.16 | | | 318.18 | 319.64 |
| 24 | 3.76 | 41 | 29.84 | 3.78 | | 9.49 | | | 318.51 | 320.04 |
| 25 | 3.80 | 43 | 29.70 | 3.84 | | 9.64 | | | 318.66 | 320.22 |
| 26 | 3.72 | 43 | 29.83 | 3.74 | | 9.39 | | | 318.41 | 319.92 |
| 27 | 3.84 | 44 | 29.76 | 3.87 | | 9.71 | | | 318.73 | 320.31 |
| 28 | 3.53 | 4 | 30.04 | 3.52 | 8.83 | 317.85 | 319.24 | | | |
| 29 | 3.91 | 27 | 30.24 | 3.88 | 9.74 | 318.76 | 320.34 | | | |
| 30 | 6.14 | 28 | 30.30 | 6.08 | 15.26 | 318.35 | 319.85 | | | |
| May 1 | 6.34 | 37 | 30.26 | 6.28 | 15.76 | 318.85 | 320.45 | | | |
| 2 | 6.12 | 20 | 30.16 | 6.08 | 15.26 | 318.35 | 319.85 | | | |
| 3 | 6.10 | 43 | 30.30 | 6.04 | -15.16 | 318.25 | 319.72 | | | |
| 4 | 6.22 | 46 | 30.35 | 6.14 | 15.41 | 318.50 | 320.03 | | | |
| 5 | 6.46 | 45 | 30.26 | 6.40 | 16.06 | 319.15 | 321.82 | | | |
| 6 | 6.26 | 47 | 30.24 | 6.21 | 15.59 | 318.68 | 320.25 | | | |
| 7 | 6.38 | 44 | 30.10 | 6.35 | 15.94 | 319.03 | 320.67 | | | |
| 8 | 6.26 | 46 | 30.09 | 6.24 | 15.66 | 318.75 | 320.33 | | | |
| 9 | 6.26 | 44 | 30.19 | 6.22 | 15.61 | 318.70 | 320.27 | | | |
| 10 | 6.33 | 45 | 30.23 | 6.28 | 15.76 | 318.85 | 320.45 | | | |
| 11 | 6.35 | 44 | 30.12 | 6.32 | 15.86 | 318.95 | 320.58 | | | |
| 12 | 6.32 | 45 | 30.06 | 6.31 | 15.84 | 318.93 | 320.55 | | | |
| 13 | 6.31 | 47 | 30.01 | 6.30 | 15.81 | 318.90 | 320.52 | | | |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Index | Air Index | Manometric Conc. (ppm) |
| 1962 | | | | | | | | | | |
| May 14 | 6.17 | 25 | 29.94 | 6.18 | 2.51 | 15.51 | 6078 | 303.09 | 318.60 | 320.15 |
| 15 | 6.29 | 45 | 29.59 | 6.37 | | 15.99 | | | 319.08 | 320.73 |
| 16 | 6.26 | 35 | 29.59 | 6.34 | | 15.91 | | | 319.00 | 320.64 |
| 17 | 6.27 | 34 | 29.93 | 6.28 | | 15.76 | | | 318.85 | 320.45 |
| 18 | 6.01 | 11 | 29.87 | 6.03 | | 15.13 | | | 318.22 | 319.69 |
| 19 | 6.19 | 26 | 29.82 | 6.23 | | 15.64 | | | 318.73 | 320.31 |
| 20 | 6.17 | 48 | 29.95 | 6.18 | | 15.51 | | | 318.60 | 320.15 |
| 21 | 6.37 | 42 | 29.94 | 6.38 | | 16.01 | | | 319.10 | 320.76 |
| 22 | 6.18 | 44 | 30.00 | 6.18 | | 15.51 | | | 318.60 | 320.15 |
| 23 | 6.19 | 45 | 30.13 | 6.16 | | 15.46 | | | 318.55 | 320.09 |
| 24 | 6.37 | 46 | 30.12 | 6.34 | | 15.91 | | | 319.00 | 320.64 |
| 25 | 6.29 | 47 | 30.01 | 6.28 | | 15.76 | | | 318.85 | 320.45 |
| 26 | 6.26 | 37 | 29.95 | 6.27 | | 15.74 | | | 318.83 | 320.43 |
| 27 | 6.40 | 47 | 30.04 | 6.39 | | 16.04 | | | 319.13 | 320.80 |
| 28 | 6.38 | 36 | 30.16 | 6.34 | | 15.91 | | | 319.00 | 320.64 |
| 29 | 6.23 | 43 | 30.13 | 6.20 | | 15.56 | | | 318.65 | 320.21 |
| 30 | 6.24 | 46 | 30.17 | 6.20 | | 15.56 | | | 318.65 | 320.21 |
| 31 | 6.57 | 22 | 30.06 | 6.56 | | 16.46 | | | 319.55 | 321.31 |
| June 1 | 6.12 | 9 | 29.86 | 6.14 | | 15.41 | | | 318.50 | |
| 1 | 7.74 | 12 | 29.86 | 7.77 | | 19.50 | 3757 | 298.98 | 318.48 | |
| June 1 Average | | | | | | | | | | |
| 2 | 7.69 | 34 | 29.80 | 7.74 | | 19.43 | | | 318.49 | 320.02 |
| 3 | 7.78 | 47 | 29.77 | 7.83 | | 19.65 | | | 318.41 | 319.92 |
| 4 | 7.79 | 45 | 29.83 | 7.83 | | 19.65 | | | 318.63 | 320.19 |
| 5 | 7.84 | 19 | 29.64 | 7.93 | | 19.90 | | | 318.63 | 320.19 |
| | | | | | | | | | 318.88 | 320.49 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|----------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) |
| | | | | | | | No. | Index | | |
| 1962 | | | | | | | | | | |
| June 6 | 7.54 | 27 | 29.59 | 7.64 | 2.51 | 19.18 | 3757 | 298.98 | 318.16 | 319.61 |
| 7 | 7.66 | 44 | 29.53 | 7.77 | | 19.50 | | | 318.48 | 320.00 |
| 8 | 7.93 | 48 | 29.77 | 7.98 | | 20.03 | | | 319.01 | 320.55 |
| 9 | 8.29 | 46 | 29.92 | 8.31 | | 20.86 | | | 319.84 | 321.66 |
| 10 | 7.99 | 22 | 30.01 | 7.98 | | 20.03 | | | 319.01 | 320.65 |
| 11 | 8.43 | 26 | 30.16 | 8.38 | | 21.03 | | | 320.01 | 320.66 |
| 12 | 7.54 | 48 | 30.03 | 7.53 | | 18.90 | | | 317.88 | 319.27 |
| 13 | 6.82 | 46 | 29.85 | 6.85 | | 17.19 | | | 316.17 | 317.19 |
| 14 | 6.79 | 47 | 29.96 | 6.80 | | 17.07 | | | 316.05 | 317.04 |
| 15 | 7.05 | 47 | 30.02 | 7.04 | | 17.67 | | | 316.65 | 317.77 |
| 16 | 6.96 | 48 | 30.15 | 6.92 | | 17.37 | | | 316.35 | 317.41 |
| 17 | 7.51 | 40 | 30.17 | 7.46 | | 18.72 | | | 317.70 | 319.05 |
| 18 | 7.65 | 42 | 30.17 | 7.60 | | 19.08 | | | 318.06 | 319.49 |
| 19 | 6.50 | 43 | 30.11 | 6.47 | | 16.24 | | | 315.22 | 316.03 |
| 20 | 6.27 | 46 | 30.05 | 6.26 | | 15.71 | | | 314.69 | 315.39 |
| 21 | 7.14 | 45 | 30.00 | 7.14 | | 17.92 | | | 316.90 | 318.08 |
| 22 | 7.32 | 25 | 30.14 | 7.28 | | 18.27 | | | 317.25 | 318.50 |
| 23 | 7.35 | 35 | 30.02 | 7.34 | | 18.42 | | | 317.40 | 318.69 |
| 24 | 7.14 | 48 | 29.88 | 7.17 | | 18.00 | | | 316.98 | 318.18 |
| 25 | 6.98 | 45 | 29.87 | 7.01 | | 17.59 | | | 316.57 | 317.68 |
| 26 | 7.05 | 45 | 29.95 | 7.06 | | 17.72 | | | 316.70 | 317.83 |
| 27 | 7.03 | 45 | 29.99 | 7.03 | | 17.64 | | | 316.62 | 317.74 |
| 28 | 7.02 | 48 | 30.09 | 7.00 | | 17.57 | | | 316.55 | 317.65 |
| 29 | 7.00 | 48 | 30.13 | 6.96 | | 17.47 | | | 316.45 | 317.52 |
| 30 | 6.52 | 45 | 30.00 | 6.52 | | 16.36 | | | 315.34 | 316.18 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----------------|---------------------------------|--------------------------|------------------------------------|------------------------------|-----------------------------|---------------------------------|-----------------------|--------|--------------|------------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Index | Air Index | Manometric Conc. (ppm) |
| 1962 | | | | | | | | | | |
| July 1 | 5.83 | 47 | 29.86 | 5.85 | 2.51 | 14.68 | 3757 | 298.98 | 313.66 | 314.13 |
| 2 | 6.73 | 44 | 29.91 | 6.75 | | 16.94 | | | 315.92 | 316.88 |
| 3 | 6.82 | 48 | 30.07 | 6.80 | | 17.07 | | | 316.05 | 317.04 |
| 4 | 6.51 | 43 | 30.07 | 6.49 | | 16.29 | | | 315.27 | 316.09 |
| 5 | 6.52 | 44 | 30.03 | 6.51 | | 16.34 | | | 315.32 | 316.15 |
| 6 | 5.62 | 44 | 29.94 | 5.63 | | 14.13 | | | 313.11 | 313.46 |
| 7 | 6.22 | 31 | 29.88 | 6.24 | | 15.66 | | | 314.64 | 315.32 |
| 8 | 5.37 | 46 | 29.65 | 5.43 | | 13.63 | | | 312.61 | 312.85 |
| 9 | 5.98 | 18 | 29.78 | 6.02 | | 15.11 | | | 314.09 | |
| 9 | 6.59 | 28 | 29.78 | 6.64 | | 16.67 | 2427 | 297.61 | 314.28 | |
| | | | | July 9 Average | | | | | | |
| 10 | 6.55 | 33 | 29.75 | 6.60 | | 16.57 | | | 314.18 | 314.76 |
| 11 | 6.38 | 45 | 29.77 | 6.42 | | 16.11 | | | 314.18 | 314.76 |
| 12 | 6.21 | 48 | 29.92 | 6.22 | | 15.61 | | | 313.72 | 314.20 |
| 13 | 5.93 | 45 | 29.91 | 5.95 | | 14.93 | | | 313.22 | 313.59 |
| 14 | 5.44 | 48 | 29.93 | 5.45 | | 13.68 | | | 312.54 | 312.77 |
| 15 | 5.82 | 47 | 30.03 | 5.81 | | 14.58 | | | 311.29 | 311.24 |
| 16 | 4.81 | 45 | 30.10 | 4.79 | | 12.02 | | | 312.19 | 312.34 |
| 17 | 3.86 | 43 | 30.11 | 3.84 | | 9.64 | | | 309.63 | 309.22 |
| 18 | 3.97 | 48 | 30.08 | 3.96 | | 9.94 | | | 307.25 | 306.32 |
| 19 | 4.44 | 47 | 29.94 | 4.45 | | 11.17 | | | 307.55 | 306.68 |
| 20 | 4.26 | 33 | 29.88 | 4.28 | | 10.74 | | | 308.78 | 308.18 |
| 21 | 6.25 | 48 | 30.09 | 6.23 | | 15.64 | | | 308.35 | 307.66 |
| 22 | 6.07 | 48 | 30.14 | 6.04 | | 15.16 | | | 313.25 | 313.63 |
| | | | | | | | | | 312.77 | 313.05 |

**TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col: 1 | Day of Month | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 9 | 10 | 11 |
|-----------------|--------------|------------|-------------|------------|----------------|----------|-------|-----------|------------|-------|--------|------------|
| | | | | | | | | Reference | Computed | | | |
| | | Observed | Number of | Barometric | Adjusted Scale | Recorder | Index | No. | Difference | Tank | Air | Manometric |
| | | Scale | Comparisons | Pressure | Difference | Scale | | | | Index | Index | Conc. |
| | | Difference | | (inches) | | Factor | | | | | | (ppm) |
| <u>1962</u> | | | | | | | | | | | | |
| July | 25 | 5.76 | 31 | 30.21 | 5.72 | 2.51 | 14.36 | 2427 | 297.61 | | 311.97 | 312.07 |
| | 26 | 5.05 | 31 | 30.29 | 5.00 | | 12.55 | | | | 310.16 | 309.85 |
| | 27 | 4.92 | 48 | 29.93 | 4.93 | | 12.37 | | | | 309.98 | 309.65 |
| | 28 | 3.90 | 48 | 29.99 | 3.90 | | 9.79 | | | | 307.40 | 306.50 |
| | 29 | 4.93 | 35 | 29.97 | 4.93 | | 12.37 | | | | 309.98 | 309.65 |
| | 30 | 4.90 | 47 | 29.87 | 4.92 | | 12.35 | | | | 309.96 | 309.62 |
| | 31 | 5.00 | 48 | 29.91 | 5.01 | | 12.57 | | | | 310.18 | 309.89 |
| Aug. | 1 | 4.96 | 47 | 29.82 | 4.99 | | 12.52 | | | | 310.13 | 309.83 |
| | 2 | 4.18 | 47 | 29.72 | 4.22 | | 10.59 | | | | 308.20 | 307.48 |
| | 3 | 3.76 | 42 | 29.56 | 3.81 | | 9.56 | | | | 307.17 | 306.22 |
| | 4 | 3.69 | 47 | 29.65 | 3.73 | | 9.36 | | | | 306.97 | 305.97 |
| | 5 | 4.18 | 48 | 29.81 | 4.20 | | 10.54 | | | | 308.15 | 307.42 |
| | 6 | 3.85 | 47 | 29.70 | 3.89 | | 9.76 | | | | 307.37 | 306.45 |
| | 7 | 3.57 | 47 | 29.51 | 3.63 | | 9.11 | | | | 306.72 | 305.67 |
| | 8 | 3.90 | 48 | 29.67 | 3.94 | | 9.89 | | | | 307.50 | 305.72 |
| | 9 | 3.68 | 47 | 29.78 | 3.70 | | 9.29 | | | | 306.90 | 305.89 |
| | 11 | 3.05 | 22 | 29.92 | 3.06 | | 7.68 | | | | 305.29 | 303.93 |
| | 12 | 4.50 | 47 | 29.84 | 4.52 | | 11.34 | | | | 308.95 | 308.39 |
| | 13 | 3.76 | 37 | 30.01 | 3.76 | | 9.44 | | | | 307.05 | 306.08 |
| | 14 | 2.55 | 34 | 29.97 | 2.55 | | 6.40 | | | | 304.01 | 302.37 |
| | 15 | -0.36 | 19 | 29.92 | -0.36 | | -0.90 | 2426 | 307.55 | | 306.65 | 305.59 |
| | 16 | -0.77 | 43 | 29.82 | -0.77 | | -1.93 | | | | 305.62 | 304.33 |
| | 17 | -0.29 | 27 | 29.81 | -0.29 | | -0.73 | | | | 306.82 | |
| | 17 | -1.11 | 6 | 29.81 | -1.12 | | -2.81 | 3756 | 310.10 | | 307.29 | |
| Aug. 17 Average | | | | | | | | | | | | |
| | 18 | -0.76 | 45 | 29.77 | -0.76 | | -1.91 | | | | 307.05 | 306.08 |
| | 19 | -0.60 | 46 | 29.75 | -0.60 | | -1.51 | | | | 308.19 | 307.46 |
| | | | | | | | | | | | 308.59 | 307.95 |

**TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Index | Air Index | Manometric Conc. (ppm) |
| 1962 | | | | | | | | | | |
| Aug. 20 | -0.41 | 48 | 29.86 | -0.41 | 2.51 | -1.03 | 3756 | 310.10 | 309.07 | 308.54 |
| 21 | -0.55 | 33 | 29.96 | -0.55 | | -1.38 | | | 308.72 | 308.11 |
| 22 | -0.59 | 48 | 29.91 | -0.59 | | -1.48 | | | 308.62 | 307.99 |
| 23 | -0.40 | 48 | 29.78 | -0.40 | | -1.00 | | | 309.10 | 308.57 |
| 24 | -0.50 | 47 | 29.80 | -0.50 | | -1.25 | | | 308.85 | 308.27 |
| 25 | -0.77 | 47 | 29.67 | -0.78 | | -1.96 | | | 308.14 | 307.40 |
| 27 | -1.11 | 45 | 29.73 | -1.12 | | -2.81 | | | 307.29 | 306.37 |
| 28 | -0.94 | 48 | 29.80 | -0.94 | | -2.36 | | | 307.74 | 306.92 |
| 29 | -0.69 | 43 | 29.54 | -0.70 | | -1.76 | | | 308.34 | 307.65 |
| 30 | -1.03 | 15 | 29.56 | -1.04 | | -2.61 | | | 307.49 | 306.61 |
| 31 | -0.98 | 44 | 30.06 | -0.98 | | -2.46 | | | 307.64 | 306.79 |
| Sept. 1 | -0.78 | 48 | 30.02 | -0.78 | | -1.96 | | | 308.14 | 307.40 |
| 2 | -0.94 | 48 | 29.58 | -0.95 | | -2.38 | | | 307.72 | 306.89 |
| 3 | -0.95 | 48 | 29.66 | -0.96 | | -2.41 | | | 307.69 | 306.85 |
| 4 | -0.40 | 33 | 29.85 | -0.40 | | -1.00 | | | 309.10 | 308.57 |
| 6 | -0.66 | 21 | 30.14 | -0.66 | | -1.66 | | | 308.44 | 307.77 |
| 7 | -0.57 | 7 | 30.15 | -0.57 | | -1.43 | | | 308.67 | 308.05 |
| 8 | -0.41 | 47 | 29.89 | -0.41 | | -1.03 | | | 309.07 | 308.54 |
| 9 | 0.88 | 47 | 29.66 | 0.89 | | 2.23 | | | 307.87 | 307.07 |
| 10 | 0.44 | 22 | 29.41 | 0.45 | | 1.13 | | | 311.23 | 311.17 |
| 11 | -0.48 | 48 | 29.45 | -0.49 | | -1.23 | | | 308.87 | 308.29 |
| 12 | -0.16 | 48 | 29.54 | -0.16 | | -0.40 | | | 309.70 | 309.30 |
| 13 | -0.11 | 48 | 29.68 | -0.11 | | -0.28 | | | 309.82 | 309.45 |
| 14 | 0.17 | 47 | 29.80 | 0.17 | | 0.43 | | | 310.53 | 310.32 |
| 15 | 0.18 | 40 | 29.80 | 0.18 | | 0.45 | | | 310.55 | 310.34 |
| 16 | 0.36 | 44 | 29.82 | 0.36 | | 0.50 | | | 311.00 | 310.89 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|------------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|----------------------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Reference Tank Index | Air Index | Manometric Conc. (ppm) |
| 1962 | | | | | | | | | | |
| Sept. 17 | -0.44 | 47 | 29.80 | -0.44 | 2.51 | -1.10 | 3756 | 310.10 | 309.00 | 308.45 |
| 18 | 0.73 | 43 | 30.02 | 0.73 | | 1.83 | | | 311.93 | 311.99 |
| 19 | -0.24 | 43 | 29.93 | -0.24 | | -0.60 | | | 309.50 | 309.06 |
| 20 | -0.31 | 25 | 29.58 | -0.31 | | -0.78 | | | 309.32 | 308.64 |
| 21 | -0.40 | 18 | 29.62 | -0.40 | | -1.00 | | | 309.10 | 308.57 |
| 23 | -0.14 | 48 | 29.88 | -0.14 | | -0.35 | | | 309.75 | 309.37 |
| 24 | 0.65 | 36 | 29.79 | 0.05 | | 0.12 | | | 310.22 | 309.94 |
| 25 | 0.03 | 29 | 29.70 | 0.03 | | 0.07 | | | 310.17 | |
| 25 | 1.19 | 19 | 29.70 | 1.20 | | 3.01 | 2426 | 307.55 | 310.56 | |
| Sept. 25 Average | | | | | | | | | | |
| 26 | 1.15 | 44 | 29.60 | 1.16 | | 2.91 | | | 310.36 | 310.11 |
| 27 | 1.23 | 46 | 29.66 | 1.24 | | 3.11 | | | 310.46 | 310.22 |
| 28 | 1.32 | 35 | 29.88 | 1.32 | | 3.31 | | | 310.66 | 310.47 |
| 29 | 1.23 | 26 | 30.09 | 1.23 | | 3.09 | | | 310.86 | 310.72 |
| 30 | 1.21 | 36 | 29.94 | 1.21 | | 3.04 | | | 310.64 | 310.45 |
| Oct. | | | | | | | | | | |
| 1 | 1.57 | 37 | 29.80 | 1.58 | | -3.96 | | | 311.51 | 311.51 |
| 2 | 1.66 | 48 | 29.77 | 1.67 | | 4.19 | | | 311.74 | 311.79 |
| 3 | 1.58 | 38 | 29.76 | 1.59 | | 3.99 | | | 311.54 | 311.55 |
| 4 | 1.64 | 34 | 29.84 | 1.65 | | 4.14 | | | 311.69 | 311.73 |
| 5 | 2.27 | 21 | 29.86 | 2.28 | | 5.72 | | | 313.54 | |
| 5 | 0.23 | 11 | 29.86 | 0.23 | | 0.58 | 2400 | 310.99 | 311.57 | |
| Oct. 5 Average | | | | | | | | | | |
| 6 | 0.11 | 44 | 29.73 | 0.11 | | 0.28 | | | 312.55 | 312.78 |
| 7 | 0.02 | 44 | 29.75 | 0.02 | | 0.05 | | | 311.27 | 311.14 |
| 8 | 0.00 | 25 | 29.98 | 0.00 | | 0.00 | | | 311.04 | 310.94 |
| 9 | -0.34 | 8 | 30.13 | -0.34 | | -0.85 | | | 310.99 | 310.88 |
| | | | | | | | | | 310.14 | 309.84 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | Day of Month | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 9 | 10 | 11 |
|---------|--------------|------------|-------------|------------|----------------|----------|------------|-----------|------------|--------|--------|--------|
| | | | | | | | | Reference | Manometric | | | |
| | | Observed | Number of | Barometric | Adjusted Scale | Recorder | Computed | No. | Conc. | | | |
| | | Scale | Comparisons | Pressure | Difference | Scale | Index | | (ppm) | | | |
| | | Difference | | (inches) | | Factor | Difference | | | | | |
| 1962 | | | | | | | | | | | | |
| Oct. 10 | | -0.11 | 46 | 30.14 | -0.11 | 2.51 | -0.28 | 2400 | 310.71 | 310.99 | 310.71 | 310.54 |
| 11 | | 0.16 | 45 | 30.36 | 0.16 | | 0.40 | | 311.39 | | 311.39 | 311.36 |
| 12 | | 0.15 | 47 | 30.46 | 0.15 | | 0.38 | | 311.37 | | 311.37 | 311.34 |
| 13 | | 0.24 | 48 | 30.06 | 0.24 | | 0.60 | | 311.59 | | 311.59 | 311.61 |
| 14 | | 0.16 | 44 | 29.64 | 0.16 | | 0.40 | | 311.39 | | 311.39 | 311.36 |
| 15 | | 0.32 | 47 | 29.59 | 0.32 | | 0.80 | | 311.79 | | 311.79 | 311.85 |
| 16 | | 0.21 | 21 | 29.70 | 0.21 | | 0.53 | | 311.52 | | 311.52 | 311.52 |
| 18 | | 4.12 | 19 | 29.64 | 4.17 | | 10.47 | 10071 | 312.03 | 301.56 | 312.03 | 312.14 |
| 19 | | 4.25 | 40 | 29.64 | 4.30 | | 10.79 | | 312.35 | | 312.35 | 312.53 |
| 20 | | 4.55 | 44 | 29.74 | 4.59 | | 11.52 | | 313.08 | | 313.08 | 313.42 |
| 21 | | 4.88 | 48 | 29.84 | 4.90 | | 12.30 | | 313.86 | | 313.86 | 314.37 |
| 22 | | 4.74 | 24 | 30.07 | 4.72 | | 11.85 | | 313.41 | | 313.41 | 313.93 |
| 23 | | 4.92 | 48 | 30.14 | 4.89 | | 12.27 | | 313.83 | | 313.83 | 314.34 |
| 24 | | 4.86 | 36 | 29.78 | 4.89 | | 12.27 | | 313.83 | | 313.83 | 314.34 |
| 25 | | 4.96 | 17 | 29.19 | 5.09 | | 12.77 | | 314.23 | | 314.23 | 314.95 |
| 26 | | 5.09 | 48 | 29.26 | 5.22 | | 13.10 | | 314.66 | | 314.66 | 315.35 |
| 27 | | 5.86 | 48 | 29.41 | 5.98 | | 15.01 | | 316.57 | | 316.57 | 317.80 |
| 28 | | 4.98 | 48 | 29.70 | 5.03 | | 12.62 | | 314.18 | | 314.18 | 314.76 |
| 29 | | 5.97 | 48 | 30.16 | 5.93 | | 14.88 | | 316.44 | | 316.44 | 317.52 |
| 30 | | 6.14 | 47 | 30.37 | 6.06 | | 15.21 | | 316.77 | | 316.77 | 317.92 |
| 31 | | 5.74 | 48 | 30.27 | 5.69 | | 14.28 | | 315.84 | | 315.84 | 316.79 |
| Nov. 1 | | 5.71 | 32 | 30.19 | 5.67 | | 14.23 | | 315.79 | | 315.79 | 316.73 |
| 2 | | 5.68 | 48 | 29.91 | 5.70 | | 14.31 | | 315.87 | | 315.87 | 316.82 |
| 3 | | 5.72 | 48 | 29.50 | 5.81 | 2.50 | 14.52 | | 316.08 | | 316.08 | 317.08 |
| " | | 5.73 | 48 | 29.50 | 5.82 | | 14.55 | | 316.11 | | 316.11 | 317.12 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|----------------|--------|-----------|------------------------|----|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) | |
| | | | | | | | No. | Index | | | |
| 1962 | | | | | | | | | | | |
| Nov. 5 | 5.58 | 48 | 29.65 | 5.64 | 2.50 | 14.10 | 10071 | 301.56 | 315.66 | 316.57 | |
| 6 | 5.61 | 47 | 29.72 | 5.66 | | 14.15 | | | 315.71 | 316.63 | |
| 7 | 5.43 | 48 | 29.68 | 5.48 | | 13.70 | | | 315.26 | 316.08 | |
| 8 | 5.18 | 34 | 29.64 | 5.24 | | 13.10 | | | 314.66 | 315.35 | |
| 9 | 5.08 | 28 | 29.67 | 5.13 | 2.49 | 12.77 | | | 314.33 | 314.95 | |
| 10 | 5.47 | 24 | 29.91 | 5.49 | | 13.67 | | | 315.23 | 315.04 | |
| 11 | 5.63 | 48 | 30.24 | 5.58 | | 13.89 | | | 315.45 | 316.31 | |
| 12 | 5.58 | 39 | 30.27 | 5.53 | | 13.77 | | | 315.33 | 316.17 | |
| 13 | 5.52 | 38 | 30.10 | 5.50 | | 13.69 | | | 315.25 | 316.07 | |
| 14 | 5.98 | 47 | 30.10 | 5.96 | | 14.84 | | | 316.40 | 317.47 | |
| 15 | 6.26 | 48 | 30.22 | 6.21 | | 15.46 | | | 317.02 | 318.22 | |
| 16 | 5.94 | 44 | 30.11 | 5.92 | | 14.74 | | | 316.30 | 317.35 | |
| 17 | 5.64 | 25 | 29.77 | 5.68 | 2.48 | 14.09 | | | 315.65 | 316.56 | |
| 18 | 5.59 | 48 | 29.26 | 5.73 | | 14.21 | | | 315.77 | 316.70 | |
| 19 | 5.39 | 45 | 29.26 | 5.52 | | 13.69 | | | 315.25 | 316.07 | |
| 20 | 5.36 | 48 | 29.43 | 5.46 | 2.47 | 13.49 | | | 315.05 | 315.92 | |
| 21 | 5.55 | 30 | 29.80 | 5.58 | | 13.78 | | | 315.34 | 316.18 | |
| 22 | 5.63 | 20 | 30.06 | 5.62 | | 13.88 | | | 315.44 | 316.30 | |
| 23 | 5.56 | 39 | 29.83 | 5.59 | | 13.81 | | | 315.37 | 316.21 | |
| 24 | 5.83 | 30 | 29.41 | 5.95 | | 14.70 | | | 316.26 | 317.30 | |
| 25 | 6.05 | 48 | 29.35 | 6.18 | | 15.26 | | | 316.82 | 317.98 | |
| 26 | 6.55 | 46 | 29.57 | 6.64 | | 16.40 | | | 317.96 | 319.37 | |
| 27 | 6.58 | 48 | 29.75 | 6.63 | | 16.38 | | | 317.94 | 319.35 | |
| 28 | 6.32 | 41 | 29.86 | 6.34 | | 15.66 | | | 317.22 | 318.47 | |
| 29 | 6.17 | 48 | 29.98 | 6.17 | | 15.24 | | | 316.80 | 317.96 | |
| 30 | 6.10 | 48 | 30.01 | 6.09 | | 15.04 | | | 316.60 | 317.71 | |

**TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Index | Air Index | Manometric Conc. (ppm) |
| 1962 | | | | | | | | | | |
| Dec. 1 | 6.07 | 48 | 29.89 | 6.09 | 2.47 | 15.04 | 10071 | 301.56 | 316.60 | 317.71 |
| 2 | 5.79 | 48 | 29.88 | 5.81 | | 14.35 | | | 315.91 | 316.87 |
| 3 | 6.23 | 43 | 29.98 | 6.23 | | 15.39 | | | 316.95 | 318.14 |
| 4 | 6.78 | 46 | 29.96 | 6.79 | | 16.77 | | | 318.33 | 319.82 |
| 5 | 6.93 | 44 | 29.96 | 6.94 | | 17.14 | | | 318.70 | 320.27 |
| 6 | 1.32 | 14 | 30.21 | 1.31 | 2.46 | 3.22 | 10072 | 314.85 | 318.07 | 319.50 |
| 7 | 1.70 | 42 | 30.50 | 1.67 | | 4.11 | | | 318.96 | 320.60 |
| 8 | 1.33 | 45 | 30.46 | 1.31 | | 3.22 | | | 318.07 | 319.50 |
| 9 | 1.13 | 47 | 30.30 | 1.12 | | 2.75 | | | 317.60 | 318.93 |
| 10 | 1.10 | 48 | 30.16 | 1.09 | | 2.68 | | | 317.53 | 318.85 |
| 11 | 1.03 | 48 | 30.00 | 1.03 | 2.45 | 2.52 | | | 317.37 | 318.65 |
| 12 | 0.88 | 48 | 29.89 | 0.88 | | 2.16 | | | 317.01 | 318.21 |
| 13 | 0.93 | 48 | 29.73 | 0.94 | | 2.30 | | | 317.15 | 318.38 |
| 14 | 0.83 | 44 | 29.96 | 0.83 | | 2.03 | | | 316.88 | 318.05 |
| 15 | 0.79 | 45 | 29.98 | 0.79 | | 1.93 | | | 316.78 | 317.93 |
| 16 | 0.77 | 48 | 29.92 | 0.77 | | 1.89 | | | 316.74 | 317.88 |
| 17 | 0.77 | 42 | 29.76 | 0.78 | | 1.91 | | | 316.76 | 317.91 |
| 18 | 0.70 | 38 | 29.75 | 0.70 | 2.44 | 1.71 | | | 316.56 | 317.66 |
| 19 | 0.85 | 24 | 30.03 | 0.85 | | 2.07 | | | 316.92 | 318.10 |
| 20 | 0.81 | 46 | 30.45 | 0.80 | | 1.95 | | | 316.80 | 317.96 |
| 21 | 0.90 | 48 | 30.67 | 0.88 | | 2.15 | | | 317.00 | 318.20 |
| 22 | 0.70 | 48 | 30.27 | 0.69 | | 1.68 | | | 316.53 | 317.63 |
| 23 | 0.72 | 47 | 29.86 | 0.72 | | 1.76 | | | 316.61 | 317.72 |
| 24 | 0.98 | 46 | 30.12 | 0.98 | | 2.39 | | | 317.24 | 318.49 |
| 25 | 0.99 | 43 | 30.06 | 0.99 | 2.43 | 2.40 | | | 317.25 | 318.50 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Index | Air Index | Manometric Conc. (ppm) |
| <u>1962</u> | | | | | | | | | | |
| Dec. 27 | 0.82 | 46 | 30.79 | 0.80 | 2.43 | 1.94 | 10072 | 314.85 | 316.79 | 317.94 |
| 28 | 1.09 | 48 | 30.79 | 1.06 | | 2.57 | | | 317.42 | 318.71 |
| 29 | 1.01 | 45 | 30.36 | 1.00 | | 2.43 | | | 317.28 | 318.54 |
| 30 | 0.79 | 48 | 30.16 | 0.78 | | 1.89 | | | 316.74 | 317.88 |
| 31 | 0.91 | 48 | 30.11 | 0.91 | | 2.21 | | | 317.06 | 318.27 |
| <u>1963</u> | | | | | | | | | | |
| Jan. 1 | 1.03 | 46 | 30.02 | 1.03 | | 2.50 | | | 317.35 | 318.63 |
| 3 | 0.87 | 24 | 30.45 | 0.86 | | 2.09 | | | 316.94 | 318.13 |
| 4 | 1.07 | 46 | 30.32 | 1.06 | | 2.57 | | | 317.42 | 318.71 |
| 5 | 1.04 | 23 | 30.10 | 1.03 | | 2.50 | | | 317.35 | 318.63 |
| 7 | 1.55 | 15 | 30.45 | 1.53 | | 3.72 | | | 318.57 | 320.11 |
| 8 | 1.42 | 48 | 30.49 | 1.39 | | 3.38 | | | 318.23 | 319.70 |
| 9 | 1.16 | 42 | 30.36 | 1.15 | | 2.79 | | | 317.64 | 318.98 |
| 10 | 1.10 | 48 | 30.26 | 1.09 | | 2.65 | | | 317.50 | 318.81 |
| 11 | 1.40 | 48 | 30.60 | 1.37 | | 3.33 | | | 318.18 | 319.64 |
| 12 | 1.38 | 32 | 30.43 | 1.36 | | 3.30 | | | 318.15 | 319.60 |
| 13 | 1.32 | 23 | 30.36 | 1.30 | | 3.16 | | | 318.01 | |
| 13 | 1.17 | 9 | 30.36 | 1.15 | | 2.79 | 4278 | 314.27 | 317.06 | |
| Jan. 13 Average | | | | | | | | | | |
| 14 | 1.34 | 47 | 30.34 | 1.32 | | 3.21 | | | 317.53 | 318.85 |
| 15 | 1.40 | 48 | 30.28 | 1.39 | | 3.38 | | | 317.48 | 318.79 |
| 16 | 1.69 | 48 | 30.38 | 1.67 | | 4.06 | | | 317.65 | 318.99 |
| 17 | 1.26 | 46 | 30.10 | 1.25 | | 3.04 | | | 318.33 | 319.82 |
| 18 | 1.39 | 48 | 30.00 | 1.39 | | 3.38 | | | 317.31 | 318.58 |
| 19 | 1.48 | 48 | 30.09 | 1.47 | | 3.57 | | | 317.65 | 318.99 |
| 20 | 1.58 | 48 | 30.55 | 1.55 | | 3.77 | | | 317.84 | 319.22 |
| | | | | | | | | | 318.04 | 319.47 |

**TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col: 1 2 3 4 5 6 7 8 9 10 11 | | | | | | | | | | |
|--|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|----------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) |
| | | | | | | | No. | Index | | |
| 1963 | | | | | | | | | | |
| Jan. 21 | 1.87 | 42 | 30.68 | 1.83 | 2.43 | 4.45 | 4278 | 314.27 | 318.72 | 320.30 |
| 22 | 1.35 | 47 | 30.26 | 1.34 | | 3.26 | | | 317.53 | 318.85 |
| 25 | 1.27 | 29 | 30.18 | 1.26 | | 3.06 | | | 317.33 | 318.60 |
| 26 | 1.36 | 8 | 30.51 | 1.34 | | 3.26 | | | 317.53 | 318.85 |
| 27 | 1.08 | 24 | 30.28 | 1.07 | | 2.60 | | | 316.87 | 318.04 |
| 28 | 1.01 | 48 | 30.31 | 1.00 | | 2.43 | | | 316.70 | 317.83 |
| 29 | 0.98 | 48 | 30.17 | 0.97 | | 2.36 | | | 316.63 | 317.75 |
| 30 | 2.13 | 47 | 30.40 | 2.10 | | 5.10 | | | 319.37 | 321.09 |
| 31 | 1.90 | 48 | 30.23 | 1.88 | | 4.57 | | | 318.84 | 320.44 |
| Feb. 1 | 2.07 | 39 | 30.59 | 2.03 | | 4.93 | 4278 | 314.27 | 319.20 | 320.88 |
| 2 | 1.93 | 47 | 30.26 | 1.91 | | 4.64 | | | 318.91 | 320.53 |
| 3 | 1.87 | 48 | 30.07 | 1.86 | | 4.52 | | | 318.79 | 320.38 |
| 4 | 2.23 | 48 | 29.94 | 2.23 | | 5.42 | | | 319.69 | 321.48 |
| 5 | 2.54 | 48 | 29.79 | 2.56 | | 6.22 | | | 320.49 | 322.45 |
| 6 | 2.47 | 48 | 29.95 | 2.47 | | 6.00 | | | 320.27 | 322.18 |
| 7 | 2.43 | 47 | 30.08 | 2.42 | | 5.88 | | | 320.15 | 322.04 |
| 8 | 2.27 | 48 | 30.14 | 2.26 | | 5.49 | | | 319.76 | 321.56 |
| 9 | 1.89 | 48 | 30.30 | 1.87 | | 4.54 | | | 318.81 | 320.41 |
| 10 | 2.21 | 48 | 30.61 | 2.16 | | 5.25 | | | 319.52 | 321.27 |
| 11 | 2.09 | 48 | 30.67 | 2.04 | | 4.96 | | | 319.23 | 320.92 |
| 12 | 1.79 | 46 | 30.55 | 1.75 | | 4.25 | | | 318.52 | 320.05 |
| 13 | 1.73 | 45 | 30.71 | 1.69 | | 4.11 | | | 318.38 | 319.88 |
| 14 | 1.65 | 46 | 30.76 | 1.61 | | 3.91 | | | 318.18 | 319.64 |
| 15 | 1.57 | 47 | 30.59 | 1.54 | | 3.74 | | | 318.01 | 319.43 |
| | | | | | | | | | | |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|---------------|----------------------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference No. | Reference Tank Index | Air Index | Manometric Conc. (ppm) |
| 1963 | | | | | | | | | | |
| Feb. 18 | 1.45 | 47 | 29.87 | 1.45 | 2.43 | 3.52 | 4278 | 314.27 | 317.79 | 319.16 |
| 19 | 1.46 | 48 | 29.94 | 1.46 | | 3.55 | | | 317.82 | 319.20 |
| 20 | 1.70 | 45 | 29.91 | 1.70 | | 4.13 | | | 318.40 | 319.91 |
| 21 | 1.97 | 18 | 29.99 | 1.97 | | 4.79 | | | 319.06 | |
| 21 | 2.27 | 29 | 29.99 | 2.27 | | 5.52 | 4286 | 314.48 | 320.00 | |
| 22 | 1.92 | 47 | 30.09 | Feb. 21 Average | | | | | 319.82 | 321.64 |
| 23 | 1.73 | 48 | 30.20 | 1.91 | | 4.64 | | | 319.12 | 320.78 |
| 24 | 1.74 | 46 | 30.19 | 1.72 | | 4.18 | | | 318.66 | 320.22 |
| 25 | 1.61 | 48 | 29.88 | 1.73 | | 4.20 | | | 318.68 | 320.25 |
| 26 | 1.44 | 46 | 29.76 | 1.62 | | 3.94 | | | 318.42 | 319.93 |
| 27 | 1.50 | 48 | 29.79 | 1.45 | | 3.52 | | | 318.00 | 319.42 |
| 28 | 1.54 | 40 | 29.70 | 1.51 | | 3.67 | | | 318.15 | 319.60 |
| March 1 | 1.50 | 22 | 29.98 | 1.55 | | 3.77 | | | 318.25 | 319.72 |
| 2 | 1.87 | 48 | 30.11 | 1.50 | | 3.64 | | | 318.12 | 319.56 |
| 3 | 1.86 | 44 | 30.01 | 1.86 | | 4.52 | | | 319.00 | 320.64 |
| 4 | 2.06 | 48 | 29.99 | 1.86 | | 4.52 | | | 319.00 | 320.64 |
| 5 | 2.13 | 45 | 30.03 | 2.06 | | 5.00 | | | 319.48 | 321.22 |
| 6 | 2.09 | 47 | 30.06 | 2.13 | | 5.17 | | | 319.65 | 321.43 |
| 7 | 1.98 | 47 | 29.99 | 2.08 | | 5.05 | | | 319.53 | 321.28 |
| 8 | 1.92 | 48 | 29.79 | 1.98 | | 4.81 | | | 319.29 | 320.99 |
| 9 | 1.97 | 48 | 29.98 | 1.93 | | 4.69 | | | 319.17 | 320.84 |
| 10 | 1.97 | 48 | 30.32 | 1.97 | | 4.79 | | | 319.27 | 320.97 |
| 11 | 1.96 | 48 | 30.59 | 1.95 | | 4.74 | | | 319.22 | 320.91 |
| 12 | 1.93 | 48 | 30.34 | 1.92 | | 4.66 | | | 319.14 | 320.81 |
| 13 | 2.54 | 47 | 30.35 | 1.91 | | 4.64 | | | 319.12 | 320.78 |
| | | | | 2.51 | | 6.10 | | | 320.58 | 322.56 |

**TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col: 1 2 3 4 5 6 7 8 9 10 11 | | | | | | | | | | |
|------------------------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|----------------|--------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) |
| | | | | | | | No. | Index | | |
| 1963 | | | | | | | | | | |
| March 14 | 2.54 | 48 | 30.04 | 2.53 | 2.43 | 6.15 | 4286 | 314.48 | 320.63 | 322.62 |
| 15 | 2.44 | 48 | 30.07 | 2.43 | | 5.90 | | | 320.38 | 322.32 |
| 16 | 2.61 | 31 | 29.81 | 2.62 | | 6.37 | | | 320.85 | 322.89 |
| 17 | 2.29 | 48 | 29.93 | 2.29 | | 5.56 | | | 320.04 | 321.90 |
| 18 | 2.50 | 29 | 29.95 | 2.50 | | 6.07 | | | 320.55 | 322.53 |
| 19 | 2.25 | 29 | 30.12 | 2.24 | | 5.44 | | | 319.92 | 321.76 |
| 20 | 2.35 | 36 | 30.09 | 2.34 | | 5.69 | | | 320.17 | 322.06 |
| 21 | 1.84 | 6 | 29.65 | 1.86 | | 4.52 | | | 319.00 | 320.64 |
| 22 | 2.07 | 48 | 29.85 | 2.08 | | 5.05 | | | 319.53 | 321.28 |
| 23 | 2.07 | 47 | 29.75 | 2.09 | | 5.08 | | | 319.56 | 321.32 |
| 24 | 2.02 | 48 | 30.09 | 2.01 | | 4.88 | | | 319.36 | 321.08 |
| 25 | 1.83 | 22 | 29.44 | 1.86 | | 4.52 | | | 319.00 | 320.64 |
| 26 | 1.76 | 39 | 29.81 | 1.77 | | 4.30 | | | 318.78 | 320.37 |
| 28 | 1.85 | 47 | 30.49 | 1.82 | | 4.42 | | | 318.90 | 320.52 |
| 29 | 1.98 | 47 | 30.42 | 1.95 | | 4.74 | | | 319.22 | 320.91 |
| 30 | 1.77 | 47 | 30.00 | 1.77 | | 4.30 | | | 318.78 | 320.37 |
| 31 | 1.89 | 47 | 30.05 | 1.89 | | 4.59 | | | 319.07 | 320.72 |
| April 1 | 1.94 | 16 | 30.38 | 1.91 | | 4.64 | | | 319.12 | 320.79 |
| 2 | 1.21 | 45 | 30.07 | 1.21 | | 2.94 | 7362 | 315.56 | 318.50 | 320.03 |
| 3 | 1.26 | 26 | 29.89 | 1.26 | | 3.06 | | | 318.62 | 320.17 |
| 19 | 1.31 | 13 | 30.35 | 1.29 | | 3.13 | | | 318.69 | 320.26 |
| 20 | 1.40 | 32 | 30.36 | 1.38 | | 3.35 | | | 318.91 | 320.53 |
| 21 | 1.43 | 47 | 30.03 | 1.43 | | 3.47 | | | 319.03 | 320.67 |
| 22 | 1.36 | 48 | 29.73 | 1.37 | | 3.33 | | | 318.89 | 320.50 |
| 23 | 1.35 | 46 | 29.92 | 1.35 | | 3.28 | | | 318.84 | 320.44 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | | | | | | | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|----------------|-------|-----------|------------------------|--------|---|---|---|---|---|---|---|---|----|----|--|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) | | | | | | | | | | | | |
| | | | | | | | No. | Index | | | | | | | | | | | | | | |
| 1963 | | | | | | | | | | | | | | | | | | | | | | |
| April | 25 | 1.38 | 45 | 30.11 | 1.37 | 2.43 | 3.33 | 7362 | 315.56 | 318.89 | 320.50 | | | | | | | | | | | |
| | 26 | 1.20 | 33 | 30.17 | 1.19 | | 2.89 | | | 318.45 | 319.97 | | | | | | | | | | | |
| | 27 | 1.38 | 48 | 30.03 | 1.38 | | 3.35 | | | 318.91 | 320.53 | | | | | | | | | | | |
| | 28 | 1.52 | 46 | 29.89 | 1.52 | | 3.69 | | | 319.25 | 320.94 | | | | | | | | | | | |
| | 29 | 1.59 | 47 | 29.91 | 1.59 | | 3.86 | | | 319.42 | 321.15 | | | | | | | | | | | |
| | 30 | 1.55 | 48 | 29.92 | 1.55 | | 3.77 | | | 319.33 | 321.04 | | | | | | | | | | | |
| May | 1 | 1.52 | 46 | 29.99 | 1.52 | | 3.69 | | | 319.25 | 320.94 | | | | | | | | | | | |
| | 2 | 1.51 | 42 | 30.21 | 1.50 | | 3.64 | | | 319.20 | 320.88 | | | | | | | | | | | |
| | 3 | 1.68 | 46 | 30.42 | 1.66 | | 4.03 | | | 319.59 | 321.36 | | | | | | | | | | | |
| | 4 | 1.57 | 46 | 30.29 | 1.55 | | 3.77 | | | 319.33 | 321.04 | | | | | | | | | | | |
| | 5 | 1.68 | 47 | 30.06 | 1.68 | | 4.08 | | | 319.64 | 321.42 | | | | | | | | | | | |
| | 6 | 1.55 | 34 | 29.62 | 1.57 | | 3.81 | | | 319.37 | 321.09 | | | | | | | | | | | |
| | 7 | 1.57 | 47 | 29.42 | 1.60 | | 3.89 | | | 319.45 | 321.19 | | | | | | | | | | | |
| | 8 | 1.56 | 46 | 29.69 | 1.57 | | 3.81 | | | 319.37 | 321.09 | | | | | | | | | | | |
| | 9 | 1.63 | 47 | 29.85 | 1.64 | | 3.98 | | | 319.54 | 321.30 | | | | | | | | | | | |
| | 10 | 1.68 | 45 | 29.85 | 1.69 | | 4.11 | | | 319.67 | 321.45 | | | | | | | | | | | |
| | 11 | 1.69 | 47 | 29.79 | 1.70 | | 4.13 | | | 319.69 | 321.48 | | | | | | | | | | | |
| | 12 | 1.67 | 46 | 29.76 | 1.68 | | 4.08 | | | 319.64 | 321.42 | | | | | | | | | | | |
| | 13 | 1.72 | 47 | 29.73 | 1.73 | | 4.20 | | | 319.76 | 321.56 | | | | | | | | | | | |
| | 14 | 1.54 | 48 | 29.72 | 1.55 | | 3.77 | | | 319.33 | 321.04 | | | | | | | | | | | |
| | 15 | 1.59 | 45 | 29.84 | 1.60 | | 3.89 | | | 319.45 | 321.19 | | | | | | | | | | | |
| | 16 | 1.82 | 46 | 29.82 | 1.83 | | 4.45 | | | 320.01 | 321.87 | | | | | | | | | | | |
| | 17 | 1.60 | 48 | 30.10 | 1.59 | | 3.86 | | | 319.42 | 321.15 | | | | | | | | | | | |
| | 18 | 1.71 | 40 | 30.19 | 1.70 | | 4.13 | | | 319.69 | 321.48 | | | | | | | | | | | |
| | 19 | -0.81 | 25 | 29.89 | -0.81 | | -1.97 | 4284 | 321.91 | 319.94 | 321.78 | | | | | | | | | | | |
| | 20 | -0.91 | 47 | 29.89 | -0.91 | | -2.21 | | | 319.70 | 321.49 | | | | | | | | | | | |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----------------|---------------------------------|--------------------------|------------------------------------|------------------------------|-----------------------------|---------------------------------|----------------|--------|--------------|------------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) |
| | | | | | | | No. | Index | | |
| 1963 | | | | | | | | | | |
| May 21 | -1.23 | 46 | 30.26 | -1.22 | 2.43 | -2.96 | 4284 | 321.91 | 318.95 | 320.58 |
| 22 | -1.21 | 48 | 30.44 | -1.19 | | -2.89 | | | 319.02 | 320.66 |
| 23 | -1.22 | 47 | 30.44 | -1.20 | | -2.92 | | | 318.99 | 320.63 |
| 24 | -1.12 | 47 | 30.22 | -1.11 | | -2.70 | | | 319.21 | 320.89 |
| 25 | -1.07 | 47 | 30.21 | -1.06 | | -2.57 | | | 319.34 | 321.05 |
| 26 | -1.14 | 48 | 30.38 | -1.12 | | -2.72 | | | 319.19 | 320.87 |
| 27 | -1.11 | 46 | 30.30 | -1.10 | | -2.67 | | | 319.24 | 320.93 |
| 28 | -1.13 | 48 | 30.25 | -1.12 | | -2.72 | | | 319.19 | 320.87 |
| 29 | -1.10 | 46 | 30.10 | -1.09 | | -2.65 | | | 319.26 | 320.95 |
| 30 | -1.43 | 47 | 30.00 | -1.43 | | -3.47 | | | 318.44 | 319.95 |
| 31 | -1.66 | 46 | 29.78 | -1.67 | | -4.06 | | | 317.85 | 319.24 |
| June 1 | -1.48 | 47 | 29.71 | -1.49 | | -3.62 | | | 318.29 | 319.77 |
| 2 | -1.57 | 46 | 29.76 | -1.58 | | -3.84 | | | 318.07 | 319.50 |
| 3 | -1.60 | 47 | 29.73 | -1.61 | | -3.91 | | | 318.00 | 319.42 |
| 4 | -1.61 | 41 | 29.65 | -1.63 | | -3.96 | | | 317.95 | 319.36 |
| 5 | -1.57 | 47 | 29.74 | -1.58 | | -3.84 | | | 318.07 | 319.50 |
| 6 | -1.55 | 47 | 29.87 | -1.56 | | -3.79 | | | 318.12 | 319.56 |
| 7 | -1.68 | 17 | 29.85 | -1.69 | | -4.11 | | | 317.80 | 319.17 |
| 12 | -1.67 | 16 | 29.86 | -1.68 | | -4.08 | | | 317.83 | 319.21 |
| 13 | -1.67 | 46 | 29.88 | -1.68 | | -4.08 | | | 317.83 | 319.21 |
| 14 | -1.74 | 47 | 30.00 | -1.74 | | -4.23 | | | 317.68 | 319.03 |
| 15 | -1.84 | 45 | 30.07 | -1.83 | | -4.45 | | | 317.46 | 318.76 |
| 16 | -1.80 | 47 | 30.06 | -1.80 | | -4.37 | | | 317.54 | 318.86 |
| 17 | -1.95 | 46 | 30.08 | -1.94 | | -4.71 | | | 317.20 | 318.44 |
| 18 | -2.04 | 19 | 30.05 | -2.03 | | -4.93 | | | 316.98 | 318.18 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|----------------|-------|-----------|------------------------|--------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) | |
| | | | | | | | No. | Index | | | |
| 1963 | | | | | | | | | | | |
| June | 20 | -1.70 | 47 | 29.97 | -1.70 | 2.43 | -4.13 | 4284 | 321.91 | 317.78 | 319.15 |
| | 21 | -1.69 | 47 | 29.82 | -1.70 | | -4.13 | | | 317.78 | 319.15 |
| | 22 | -1.77 | 46 | 29.43 | -1.80 | | -4.37 | | | 317.54 | 318.86 |
| | 23 | -2.01 | 45 | 29.35 | -2.05 | | -4.98 | | | 316.93 | 318.11 |
| | 24 | -2.10 | 45 | 29.53 | -2.13 | | -5.17 | | | 316.74 | 317.88 |
| | 25 | -1.99 | 47 | 29.76 | -2.00 | | -4.86 | | | 317.05 | 318.26 |
| | 26 | -1.79 | 48 | 29.81 | -1.80 | | -4.37 | | | 317.54 | 318.86 |
| | 27 | -1.87 | 46 | 29.60 | -1.89 | | -4.59 | | | 317.32 | 318.59 |
| | 28 | -2.03 | 46 | 29.76 | -2.05 | | -4.98 | | | 316.93 | 318.11 |
| | 29 | -2.01 | 23 | 29.93 | -2.01 | | -4.88 | | | 317.03 | 318.24 |
| | 30 | -2.33 | 47 | 29.77 | -2.35 | | -5.71 | | | 316.20 | 317.23 |
| July | 1 | 1.52 | 46 | 29.68 | 1.53 | | 3.72 | 3757 | 312.30 | 316.22 | 317.25 |
| | 2 | 1.72 | 48 | 29.75 | 1.73 | | 4.20 | | | 316.70 | 317.83 |
| | 3 | 1.56 | 45 | 29.66 | 1.58 | | 3.84 | | | 316.34 | 317.38 |
| | 4 | 1.57 | 47 | 29.52 | 1.59 | | 3.86 | | | 316.36 | 317.42 |
| | 5 | 1.58 | 38 | 29.89 | 1.58 | | 3.84 | | | 316.34 | 317.40 |
| | 6 | 1.35 | 30 | 29.98 | 1.35 | | 3.28 | 4272 | 312.28 | 315.62 | 316.52 |
| | 7 | 1.01 | 47 | 29.95 | 1.01 | | 2.45 | | | 314.79 | 315.51 |
| | 8 | 1.24 | 46 | 30.05 | 1.24 | | 3.01 | | | 315.35 | 316.19 |
| | 9 | 1.17 | 47 | 30.08 | 1.17 | | 2.84 | | | 315.18 | 315.98 |
| | 10 | 1.36 | 46 | 30.01 | 1.36 | | 3.30 | | | 315.64 | 316.54 |
| | 11 | 1.08 | 45 | 29.90 | 1.08 | | 2.62 | | | 314.96 | 315.71 |
| | 12 | 1.25 | 46 | 30.01 | 1.25 | | 3.04 | | | 315.38 | 316.23 |
| | 13 | 1.42 | 46 | 30.15 | 1.41 | | 3.43 | | | 314.77 | 315.48 |
| | 14 | 1.50 | 48 | 30.05 | 1.50 | | 3.64 | | | 315.98 | 316.96 |
| | 15 | 1.43 | 48 | 29.78 | 1.44 | | 3.50 | | | 315.84 | 316.79 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|----------------|-------|-----------|------------------------|--------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank | | Air Index | Manometric Conc. (ppm) | |
| | | | | | | | No. | Index | | | |
| 1963 | | | | | | | | | | | |
| July 16 | 1.05 | 46 | 29.57 | 1.06 | 2.43 | 2.57 | | 4272 | 312.28 | 314.85 | 315.50 |
| 17 | 0.59 | 47 | 29.53 | 0.60 | | 1.46 | | | | 313.74 | 314.23 |
| 18 | 0.40 | 43 | 29.76 | 0.40 | | 0.97 | | | | 313.25 | 313.63 |
| 19 | 0.57 | 47 | 29.96 | 0.57 | | 1.38 | | | | 313.66 | 314.13 |
| 20 | 0.03 | 46 | 29.96 | 0.03 | | 0.07 | | | | 312.35 | 312.53 |
| 21 | 0.03 | 48 | 29.79 | 0.03 | | 0.07 | | | | 312.35 | 312.53 |
| 22 | 0.03 | 47 | 29.65 | 0.03 | | 0.07 | | | | 312.35 | 312.53 |
| 23 | -0.69 | 41 | 29.45 | -0.70 | | -1.70 | | | | 310.58 | 316.38 |
| 24 | -1.56 | 44 | 29.53 | -1.58 | | -3.84 | | 18204 | 314.49 | 310.65 | 310.46 |
| 25 | -2.36 | 48 | 29.69 | -2.38 | | -5.78 | | | | 308.71 | 308.10 |
| 26 | -2.18 | 46 | 29.65 | -2.20 | | -5.35 | | | | 309.14 | 308.62 |
| 27 | -1.51 | 48 | 29.82 | -1.52 | | -3.69 | | | | 310.80 | 310.64 |
| 28 | -2.25 | 46 | 29.75 | -2.27 | | -5.52 | | | | 308.97 | 308.41 |
| 29 | -1.02 | 34 | 30.01 | -1.02 | | -2.48 | | | | 312.01 | 312.12 |
| 30 | -0.88 | 41 | 29.82 | -0.88 | | -2.14 | | | | 312.35 | 312.53 |
| 31 | -1.27 | 20 | 29.70 | -1.28 | | -3.11 | | | | 311.38 | 311.35 |
| Aug. 1 | -1.26 | 46 | 29.59 | -1.28 | | -3.11 | | | | 311.38 | 311.35 |
| 2 | -1.37 | 48 | 29.62 | -1.39 | | -3.38 | | | | 311.11 | 311.02 |
| 3 | -1.42 | 42 | 29.67 | -1.43 | | -3.47 | | | | 311.02 | 310.91 |
| 4 | -1.10 | 48 | 29.83 | -1.10 | | -2.67 | | | | 311.82 | 311.89 |
| 5 | -1.33 | 46 | 29.91 | -1.33 | | -3.23 | | | | 311.26 | 311.21 |
| 6 | -1.79 | 47 | 29.69 | -1.81 | | -4.40 | | | | 310.09 | 309.78 |
| 7 | -2.06 | 46 | 29.52 | -2.09 | | -5.08 | | | | 309.41 | 308.95 |
| 8 | -2.24 | 48 | 29.49 | -2.28 | | -5.54 | | | | 308.95 | 308.39 |
| 9 | -1.99 | 46 | 29.58 | -2.02 | | -4.91 | | | | 309.58 | 309.16 |

BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------------|-----------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|----------------------|-----------|------------------------|
| Day of Month | Observed Scale Difference | Number of Comparisons | Barometric Pressure (inches) | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Reference Tank Index | Air Index | Manometric Conc. (ppm) |
| 1963 | | | | | | | | | | |
| Aug. 11 | -2.06 | 34 | 30.11 | -2.05 | 2.43 | -4.98 | 18204 | 314.49 | 309.51 | 309.07 |
| 12 | -2.34 | 28 | 30.08 | -2.33 | | -5.66 | | | 308.83 | 308.37 |
| 13 | -2.33 | 48 | 30.03 | -2.33 | | -5.66 | | | 308.83 | 308.24 |
| 14 | -2.41 | 46 | 29.82 | -2.42 | | -5.88 | | | 308.61 | 307.53 |
| 15 | -2.05 | 45 | 29.42 | -2.09 | | -5.08 | | | 309.41 | 308.95 |
| 16 | -2.05 | 47 | 29.71 | -2.07 | | -5.03 | | | 309.46 | 309.01 |
| 17 | -2.29 | 48 | 29.59 | -2.32 | | -5.64 | | | 308.85 | 308.27 |
| 18 | -1.89 | 46 | 29.58 | -1.92 | | -4.66 | | | 309.83 | 309.46 |
| 19 | -2.06 | 48 | 30.01 | -2.06 | | -5.00 | | | 309.49 | 309.05 |
| 20 | -2.22 | 47 | 30.00 | -2.22 | | -5.39 | | | 309.10 | 308.57 |
| 21 | -2.71 | 33 | 29.97 | -2.71 | | -6.58 | | | 307.91 | 307.12 |
| 22 | -2.91 | 48 | 29.62 | -2.94 | | -7.14 | | | 307.35 | 306.44 |
| 23 | -2.56 | 40 | 29.57 | -2.59 | | -6.29 | | | 308.20 | 307.48 |
| 24 | -1.22 | 47 | 29.80 | -1.23 | | -2.99 | | | 311.50 | 311.50 |
| 25 | -2.07 | 45 | 29.65 | -2.09 | | -5.08 | | | 309.41 | 308.95 |
| 26 | -2.16 | 48 | 29.70 | -2.18 | | -5.30 | | | 309.19 | 308.68 |
| 27 | -1.16 | 46 | 29.93 | -1.16 | | -2.82 | | | 311.67 | 311.70 |
| 28 | -1.35 | 48 | 30.03 | -1.35 | | -3.28 | | | 311.21 | 311.14 |
| 29 | -1.12 | 46 | 30.08 | -1.12 | | -2.72 | | | 311.77 | 311.83 |
| 30 | -1.70 | 48 | 29.97 | -1.70 | | -4.13 | | | 310.36 | 310.11 |
| 31 | -1.78 | 48 | 30.05 | -1.78 | | -4.32 | | | 310.17 | 310.60 |
| Sept. 1 | -1.70 | 45 | 30.13 | -1.69 | | -4.11 | | | 310.38 | 310.12 |
| 2 | -1.72 | 37 | 30.09 | -1.71 | | -4.15 | | | 310.34 | 310.08 |
| 6 | -1.52 | 20 | 30.11 | -1.51 | | -3.67 | 3757 | 312.30 | 308.63 | 308.06 |
| 7 | -1.47 | 46 | 30.15 | -1.46 | | -3.55 | | | 308.75 | 308.15 |
| 8 | -1.38 | 48 | 30.20 | -1.37 | | -3.33 | | | 308.97 | 308.41 |

TABLE 10: INDICES OF AIR WITH CONTINUOUS ANALYZER
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | | | | | | | | | | | |
|---------------------------|---------------------------|-----------------------|---------------------------|--------------------|----------------------|-----------|------------------------------|-----------------------|--------|--------|----|
| Day of Month | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | 9 | 10 | 11 |
| | | | | | | | Barometric Pressure (inches) | Number of Comparisons | | | |
| Observed Scale Difference | Adjusted Scale Difference | Recorder Scale Factor | Computed Index Difference | Reference Tank No. | Reference Tank Index | Air Index | Manometric Conc. (ppm) | | | | |
| 1963 | | | | | | | | | | | |
| Sept. 9 | -1.36 | 48 | 30.22 | -1.35 | 2.43 | -3.28 | 3757 | 312.30 | 309.02 | 306.48 | |
| 10 | -1.34 | 34 | 30.22 | -1.33 | | -3.23 | | | 309.07 | 308.54 | |
| 11 | -1.07 | 8 | 30.20 | -1.06 | | -2.57 | | | 309.73 | 309.34 | |
| 12 | -1.42 | 32 | 30.17 | -1.41 | | -3.43 | | | 308.87 | 308.29 | |
| 13 | -1.21 | 48 | 30.09 | -1.21 | | -2.94 | | | 309.36 | 308.89 | |
| 14 | -0.17 | 47 | 30.03 | -0.17 | | -0.41 | | | 311.89 | 311.97 | |
| 15 | -0.82 | 48 | 29.94 | -0.82 | | -1.99 | | | 310.31 | 310.05 | |
| 16 | -0.36 | 46 | 29.66 | -0.36 | | -0.87 | | | 311.43 | 311.41 | |
| 17 | -0.74 | 32 | 29.75 | -0.74 | | -1.80 | | | 310.50 | 310.23 | |
| 18 | -0.72 | 48 | 30.01 | -0.72 | | -1.75 | | | 310.55 | 310.34 | |
| 19 | -0.71 | 46 | 30.07 | -0.71 | | -1.72 | | | 310.58 | 310.38 | |
| 20 | -0.31 | 48 | 29.75 | -0.31 | | -0.75 | | | 311.55 | 311.56 | |
| 21 | -0.89 | 47 | 29.79 | -0.90 | | -2.19 | | | 310.11 | 309.80 | |
| 22 | -1.09 | 45 | 29.95 | -1.09 | | -2.65 | | | 309.65 | 309.24 | |
| 23 | -1.07 | 9 | 29.95 | -1.07 | | -2.60 | 4272 | 312.28 | 309.68 | 309.28 | |
| 24 | 0.17 | 48 | 29.80 | 0.17 | | 0.41 | | | 312.69 | 312.95 | |
| 25 | 1.82 | 48 | 29.70 | 1.84 | | 4.47 | | | 316.75 | 317.50 | |
| 26 | 0.22 | 20 | 29.66 | 0.22 | | 0.53 | | | 312.81 | 313.09 | |
| 27 | -0.06 | 16 | 29.46 | -0.06 | | -0.14 | | | 312.14 | 312.28 | |
| 28 | 0.94 | 46 | 29.34 | 0.96 | | 2.33 | | | 314.61 | 315.29 | |
| 29 | 0.40 | 48 | 29.40 | 0.41 | | 1.00 | | | 313.28 | 313.67 | |
| 30 | -0.11 | 48 | 29.65 | -0.11 | | -0.27 | | | 312.01 | 312.45 | |
| Oct. 1 | -0.20 | 45 | 29.85 | -0.20 | | -0.49 | | | 311.79 | 311.85 | |
| 2 | 0.22 | 47 | 29.81 | 0.22 | | -0.55 | | | 311.62 | 311.64 | |

TABLE 11: MONTHLY AVERAGE INDEX OF CARBON DIOXIDE (ppm) AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|----------------|--------|-------|----------------|--------|-------|----------------|--------|
| Month | Number of Days | Index | Month | Number of Days | Index | Month | Number of Days | Index |
| <u>1961</u> | | | | | | | | |
| Jan. | --- | --- | Jan. | 26 | 320.33 | Jan. | 27 | 317.73 |
| Feb. | --- | --- | Feb. | 28 | 319.44 | Feb. | 28 | 318.87 |
| Mar. | --- | --- | Mar. | 29 | 317.63 | Mar. | 30 | 319.48 |
| Apr. | --- | --- | Apr. | 30 | 318.00 | Apr. | 15 | 318.92 |
| May | --- | --- | May | 31 | 318.80 | May | 31 | 319.34 |
| June | --- | --- | June | 30 | 317.44 | June | 26 | 317.51 |
| July | 21 | 310.77 | July | 31 | 311.89 | July | 31 | 313.63 |
| Aug. | 24 | 307.87 | Aug. | 29 | 307.64 | Aug. | 31 | 309.85 |
| Sept. | 23 | 310.39 | Sept. | 28 | 309.67 | Sept. | 27 | 310.88 |
| Oct. | 28 | 314.45 | Oct. | 30 | 312.78 | Oct. | --- | --- |
| Nov. | 18 | 315.31 | Nov. | 30 | 315.93 | Nov. | --- | --- |
| Dec. | 14 | 316.12 | Dec. | 31 | 317.17 | Dec. | --- | --- |
| <u>1962</u> | | | | | | | | |
| <u>1963</u> | | | | | | | | |

**TABLE 12: MONTHLY AVERAGE INDEX OF CARBON DIOXIDE (ppm) AT BARROW, ALASKA
NANOMETRIC CONCENTRATION SCALE
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------------------------|-------|----------------|--------|-------|----------------|--------|-------|----------------|--------|
| | Month | Number of Days | Index | Month | Number of Days | Index | Month | Number of Days | Index |
| | | <u>1961</u> | | | <u>1962</u> | | | <u>1963</u> | |
| | Jan. | --- | --- | Jan. | 26 | 322.26 | Jan. | 27 | 319.09 |
| | Feb. | --- | --- | Feb. | 28 | 321.17 | Feb. | 28 | 320.47 |
| | Mar. | --- | --- | Mar. | 29 | 318.96 | Mar. | 30 | 321.22 |
| | Apr. | --- | --- | Apr. | 30 | 319.42 | Apr. | 15 | 320.53 |
| | May | --- | --- | May | 31 | 320.43 | May | 31 | 321.06 |
| | June | --- | --- | June | 30 | 318.69 | June | 26 | 318.82 |
| | July | 21 | 310.61 | July | 31 | 311.97 | July | 31 | 314.09 |
| | Aug. | 24 | 307.07 | Aug. | 29 | 306.76 | Aug. | 31 | 309.51 |
| | Sept. | 23 | 310.15 | Sept. | 28 | 309.26 | Sept. | 27 | 310.75 |
| | Oct. | 28 | 315.09 | Oct. | 30 | 313.06 | Oct. | -- | ---- |
| | Nov. | 18 | 316.14 | Nov. | 30 | 316.90 | Nov. | -- | ---- |
| | Dec. | 14 | 317.13 | Dec. | 31 | 318.41 | Dec. | -- | ---- |
| Average of Monthly Values | | | 312.70 | | | 316.44 | | | 317.28 |

TABLE 13: VALUES OF TABLE 12 REFERRED TO A CONSTANT DATUM (JANUARY 1960)
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 |
|------|----------------|--|-------------|-------------|------------------------------|---|
| | Month | Concentration of CO ₂ (ppm) | | | | Departure of Average from Annual Mean |
| | | <u>1961</u> | <u>1962</u> | <u>1963</u> | <u>Average 1961-1963</u> | |
| | January | -- | 320.82 | 316.93 | 318.87 | -4.11 |
| | February | -- | 319.67 | 318.25 | 318.96 | -4.20 |
| | March | -- | 317.40 | 318.94 | 318.17 | -3.41 |
| | April | -- | 317.80 | 318.19 | 317.99 | -3.23 |
| | May | -- | 318.75 | 318.66 | 318.70 | -3.94 |
| | June | -- | 316.95 | 316.36 | 316.65 | -1.89 |
| | July | 309.53 | 310.17 | 311.57 | 310.42 | 4.34 |
| | August | 305.93 | 304.90 | 306.93 | 305.92 | 8.84 |
| | September | 308.95 | 307.34 | 308.11 | 308.13 | 6.63 |
| | October | 313.83 | 311.08 | -- | 312.45 | 2.31 |
| | November | 314.82 | 314.86 | -- | 314.84 | -0.08 |
| | December | 315.75 | 316.31 | -- | 316.03 | -1.27 |
| | Annual Mean | | | | | |
| | | | | | 314.76 | |

**TABLE 14: TWELVE MONTH RUNNING MEAN CONCENTRATION OF ATMOSPHERIC
CARBON DIOXIDE AT BARROW, ALASKA**
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | | |
|-----------|---|--------|
| 1 | 2 | 3 |
| Month | Concentration of CO ₂ (ppm) | |
| | 1962 | 1963 |
| January | 316.43 | 316.46 |
| February | 316.54 | 316.64 |
| March | 316.51 | 316.87 |
| April | 316.44 | 316.99 |
| May | 316.27 | |
| June | 316.33 | |
| July | 316.44 | |
| August | 316.18 | |
| September | 316.12 | |
| October | 316.31 | |
| November | 316.40 | |
| December | 316.45 | |

TABLE 15: DIURNAL COURSE OF CARBON DIOXIDE
BARROW, ALASKA CARBON DIOXIDE PROJECT

1961

| Month: | | July | | August | | September | |
|---------|--|--------|--------------------|--------|--------------------|-----------|--------------------|
| A.S.T.* | | Index | Manometer (ppm) | Index | Manometer (ppm) | Index | Manometer (ppm) |
| 00-01 | | 310.80 | 310.64 | 307.75 | 306.93 | 310.44 | 310.21 |
| 01-02 | | 310.82 | 310.67 | 307.93 | 307.15 | 310.58 | 310.38 |
| 02-03 | | 311.15 | 311.07 | 307.93 | 307.15 | 310.60 | 310.40 |
| 03-04 | | 310.91 | 310.78 | 308.67 | 308.05 | 310.72 | 310.55 |
| 04-05 | | 311.42 | 311.40 | 308.83 | 308.24 | 310.87 | 310.73 |
| 05-06 | | 311.24 | 311.18 | 308.88 | 308.31 | 310.78 | 310.62 |
| 06-07 | | 311.15 | 311.07 | 308.73 | 308.12 | 310.78 | 310.62 |
| 07-08 | | 311.35 | 311.32 | 309.34 | 308.87 | 310.74 | 310.57 |
| 08-09 | | 311.13 | 311.05 | 308.79 | 308.20 | 310.82 | 310.67 |
| 09-10 | | 310.86 | 310.72 | 308.23 | 307.51 | 311.08 | 310.99 |
| 10-11 | | 310.54 | 310.33 | 308.09 | 307.34 | 310.65 | 310.46 |
| 11-12 | | 310.59 | 310.39 | 307.92 | 307.14 | 310.69 | 310.51 |
| 12-13 | | 310.83 | 310.68 | 307.49 | 306.61 | 310.36 | 310.11 |
| 13-14 | | 310.81 | 310.66 | 307.36 | 306.45 | 310.49 | 310.27 |
| 14-15 | | 310.66 | 310.47 | 307.46 | 306.57 | 310.43 | 310.19 |
| 15-16 | | 310.53 | 310.32 | 307.46 | 306.57 | 310.59 | 310.39 |
| 16-17 | | 310.85 | 310.71 | 307.73 | 306.90 | 310.43 | 310.19 |
| 17-18 | | 309.88 | 309.52 | 307.55 | 306.68 | 310.62 | 310.43 |
| 18-19 | | 309.99 | 309.66 | 307.62 | 306.77 | 310.54 | 310.33 |
| 19-20 | | 309.94 | 309.61 | 307.61 | 306.76 | 310.31 | 310.05 |
| 20-21 | | 310.28 | 310.01 | 307.85 | 307.05 | 310.01 | 309.68 |
| 21-22 | | 310.71 | 310.54 | 307.48 | 306.60 | 310.07 | 309.76 |
| 22-23 | | 310.33 | 310.07 | 307.26 | 306.33 | 310.58 | 310.38 |
| 23-24 | | 310.15 | 309.85 | 307.38 | 306.48 | 310.86 | 310.72 |

* Alaska Standard Time

TABLE 15: DIURNAL COURSE OF CARBON DIOXIDE
BARROW, ALASKA CARBON DIOXIDE PROJECT

1961

| Month: A.S.T.* | October | | November | | December | |
|-------------------|---------|--------------------|----------|--------------------|----------|--------------------|
| | Index | Manometer (ppm) | Index | Manometer (ppm) | Index | Manometer (ppm) |
| 00-01 | 314.44 | 315.08 | 315.25 | 316.07 | 316.04 | 317.03 |
| 01-02 | 314.32 | 314.93 | 315.30 | 316.13 | 316.01 | 316.99 |
| 02-03 | 314.48 | 315.13 | 315.29 | 316.12 | 316.05 | 317.04 |
| 03-04 | 314.41 | 315.04 | 315.32 | 316.15 | 316.03 | 317.02 |
| 04-05 | 314.45 | 315.09 | 315.37 | 316.21 | 315.99 | 316.97 |
| 05-06 | 314.41 | 315.04 | 315.37 | 316.21 | 316.02 | 317.01 |
| 06-07 | 314.57 | 315.24 | 315.37 | 316.21 | 316.21 | 317.24 |
| 07-08 | 314.42 | 315.06 | 315.23 | 316.04 | 316.27 | 317.31 |
| 08-09 | 314.61 | 315.29 | 315.34 | 316.18 | 316.28 | 317.32 |
| 09-10 | 314.35 | 314.97 | 315.36 | 316.20 | 316.38 | 317.44 |
| 10-11 | 314.55 | 315.21 | 315.58 | 316.47 | 316.50 | 317.59 |
| 11-12 | 314.51 | 315.17 | 315.77 | 316.70 | 316.37 | 317.43 |
| 12-13 | 314.34 | 314.96 | 315.44 | 316.30 | 316.07 | 317.07 |
| 13-14 | 314.33 | 314.95 | 315.71 | 316.63 | 316.06 | 317.05 |
| 14-15 | 314.38 | 315.01 | 315.56 | 316.45 | 316.04 | 317.03 |
| 15-16 | 314.48 | 315.13 | 315.54 | 316.42 | 316.02 | 317.01 |
| 16-17 | 314.42 | 315.06 | 315.42 | 316.27 | 315.89 | 316.85 |
| 17-18 | 314.27 | 314.87 | 315.58 | 316.47 | 315.95 | 316.92 |
| 18-19 | 314.33 | 314.95 | 315.60 | 316.49 | 316.03 | 317.02 |
| 19-20 | 314.44 | 315.08 | 315.56 | 316.45 | 316.05 | 317.04 |
| 20-21 | 314.37 | 315.00 | 315.45 | 316.31 | 316.09 | 317.09 |
| 21-22 | 314.53 | 315.19 | 315.39 | 316.24 | 316.28 | 317.32 |
| 22-23 | 314.38 | 315.01 | 315.30 | 316.13 | 316.08 | 317.08 |
| 23-24 | 314.37 | 315.00 | 315.55 | 316.45 | 316.10 | 317.10 |

TABLE 15: DIURNAL COURSE OF CARBON DIOXIDE
BARROW, ALASKA CARBON DIOXIDE PROJECT

1962

| Month: | January | | | February | | | March | | |
|--------|---------|--------|--------------------|----------|--------------------|--------|--------------------|--------|--------------------|
| | A.S.T.* | Index | Manometer (ppm) | Index | Manometer (ppm) | Index | Manometer (ppm) | Index | Manometer (ppm) |
| 00-01 | | 317.65 | 318.99 | 317.78 | 319.15 | 317.83 | 319.21 | 317.83 | 319.21 |
| 01-02 | | 317.68 | 319.03 | 317.82 | 319.20 | 317.77 | 319.14 | 317.77 | 319.14 |
| 02-03 | | 317.58 | 318.91 | 317.85 | 319.24 | 317.87 | 319.26 | 317.87 | 319.26 |
| 03-04 | | 317.58 | 318.91 | 317.88 | 319.27 | 317.88 | 319.27 | 317.88 | 319.27 |
| 04-05 | | 317.58 | 318.91 | 317.84 | 319.22 | 317.97 | 319.38 | 317.97 | 319.38 |
| 05-06 | | 317.79 | 319.16 | 317.86 | 319.25 | 317.99 | 319.41 | 317.99 | 319.41 |
| 06-07 | | 318.01 | 319.43 | 317.85 | 319.24 | 317.96 | 319.37 | 317.96 | 319.37 |
| 07-08 | | 317.52 | 318.83 | 317.86 | 319.25 | 317.96 | 319.37 | 317.96 | 319.37 |
| 08-09 | | 318.00 | 319.42 | 317.95 | 319.36 | 317.94 | 319.35 | 317.94 | 319.35 |
| 09-10 | | 317.72 | 319.08 | 317.95 | 319.36 | 317.94 | 319.35 | 317.94 | 319.35 |
| 10-11 | | 317.55 | 318.87 | 317.73 | 319.09 | 317.83 | 319.21 | 317.83 | 319.21 |
| 11-12 | | 317.46 | 318.76 | 317.79 | 319.16 | 317.90 | 319.30 | 317.90 | 319.30 |
| 12-13 | | 317.45 | 318.75 | 317.75 | 319.11 | 317.83 | 319.21 | 317.83 | 319.21 |
| 13-14 | | 317.22 | 318.47 | 317.82 | 319.20 | 317.81 | 319.19 | 317.81 | 319.19 |
| 14-15 | | 317.52 | 318.83 | 317.96 | 319.37 | 317.89 | 319.28 | 317.89 | 319.28 |
| 15-16 | | 317.46 | 318.76 | 317.91 | 319.31 | 317.83 | 319.21 | 317.83 | 319.21 |
| 16-17 | | 317.38 | 318.66 | 317.78 | 319.15 | 317.87 | 319.26 | 317.87 | 319.26 |
| 17-18 | | 317.27 | 318.53 | 317.76 | 319.13 | 317.87 | 319.26 | 317.87 | 319.26 |
| 18-19 | | 317.32 | 318.59 | 317.62 | 318.96 | 317.64 | 318.98 | 317.64 | 318.98 |
| 19-20 | | 317.58 | 318.91 | 317.80 | 319.17 | 317.83 | 319.21 | 317.83 | 319.21 |
| 20-21 | | 317.10 | 318.32 | 317.90 | 319.30 | 317.75 | 319.11 | 317.75 | 319.11 |
| 21-22 | | 317.64 | 318.98 | 317.91 | 319.31 | 317.77 | 319.14 | 317.77 | 319.14 |
| 22-23 | | 317.63 | 318.97 | 317.95 | 319.36 | 317.81 | 319.19 | 317.81 | 319.19 |
| 23-24 | | 317.72 | 319.08 | 317.98 | 319.39 | 317.82 | 319.20 | 317.82 | 319.20 |

* Alaska Standard Time

TABLE 15: DIURNAL COURSE OF CARBON DIOXIDE
BARROW, ALASKA CARBON DIOXIDE PROJECT

1962

| Month: | April | | | May | | | June | | |
|--------|---------|--------|-----------------|--------|-----------------|--------|-----------------|-------|-----------------|
| | A.S.T.* | Index | Manometer (ppm) | Index | Manometer (ppm) | Index | Manometer (ppm) | Index | Manometer (ppm) |
| 00-01 | | 317.97 | 319.38 | 318.95 | 320.58 | 317.23 | 318.48 | | |
| 01-02 | | 317.97 | 319.38 | 318.95 | 320.58 | 317.55 | 318.87 | | |
| 02-03 | | 318.03 | 319.46 | 319.04 | 320.69 | 317.53 | 318.85 | | |
| 03-04 | | 318.06 | 319.49 | 319.09 | 320.75 | 317.44 | 318.74 | | |
| 04-05 | | 318.08 | 319.52 | 319.05 | 320.70 | 317.52 | 318.83 | | |
| 05-06 | | 318.15 | 319.60 | 319.08 | 320.73 | 317.24 | 318.49 | | |
| 06-07 | | 318.18 | 319.64 | 319.03 | 320.67 | 317.59 | 318.92 | | |
| 07-08 | | 318.24 | 319.71 | 319.05 | 320.70 | 317.50 | 318.81 | | |
| 08-09 | | 318.03 | 319.46 | 319.01 | 320.65 | 317.35 | 318.63 | | |
| 09-10 | | 317.94 | 319.35 | 318.89 | 320.50 | 317.31 | 318.58 | | |
| 10-11 | | 318.07 | 319.50 | 318.91 | 320.53 | 317.31 | 318.58 | | |
| 11-12 | | 318.04 | 319.47 | 318.81 | 320.41 | 317.51 | 318.82 | | |
| 12-13 | | 318.01 | 319.43 | 318.68 | 320.25 | 317.34 | 318.61 | | |
| 13-14 | | 317.95 | 319.36 | 318.64 | 320.20 | 317.37 | 318.65 | | |
| 14-15 | | 317.90 | 319.30 | 318.65 | 320.21 | 317.54 | 318.86 | | |
| 15-16 | | 317.96 | 319.37 | 318.63 | 320.19 | 317.35 | 318.63 | | |
| 16-17 | | 317.80 | 319.17 | 318.57 | 320.11 | 317.21 | 318.46 | | |
| 17-18 | | 317.73 | 319.09 | 318.45 | 319.97 | 317.00 | 318.20 | | |
| 18-19 | | 317.72 | 319.08 | 318.43 | 319.94 | 317.07 | 318.29 | | |
| 19-20 | | 317.94 | 319.35 | 318.58 | 320.13 | 317.05 | 318.26 | | |
| 20-21 | | 318.09 | 319.53 | 318.76 | 320.34 | 317.10 | 318.32 | | |
| 21-22 | | 318.12 | 319.56 | 318.70 | 320.27 | 317.02 | 318.22 | | |
| 22-23 | | 318.19 | 319.65 | 318.90 | 320.52 | 316.96 | 318.15 | | |
| 23-24 | | 318.08 | 319.52 | 318.96 | 320.59 | 316.88 | 318.05 | | |

TABLE 15: DIURNAL COURSE OF CARBON DIOXIDE
BARROW, ALASKA CARBON DIOXIDE PROJECT

1962

| Month: | | July | | August | | September | |
|----------|--------|--------------------|--------|--------------------|--------|--------------------|--|
| A.S.T. # | Index | Manometer (ppm) | Index | Manometer (ppm) | Index | Manometer (ppm) | |
| 00-01 | 312.26 | 312.42 | 307.75 | 306.93 | 309.83 | 309.46 | |
| 01-02 | 312.39 | 312.58 | 307.68 | 306.84 | 309.96 | 309.62 | |
| 02-03 | 313.01 | 313.34 | 307.70 | 306.87 | 309.96 | 309.62 | |
| 03-04 | 312.54 | 312.77 | 307.88 | 307.09 | 310.02 | 309.69 | |
| 04-05 | 312.60 | 312.84 | 308.07 | 307.32 | 310.00 | 309.67 | |
| 05-06 | 312.33 | 312.51 | 307.70 | 306.87 | 310.10 | 309.79 | |
| 06-07 | 312.38 | 312.57 | 307.77 | 306.95 | 310.02 | 309.69 | |
| 07-08 | 312.30 | 312.47 | 307.52 | 306.65 | 309.80 | 309.43 | |
| 08-09 | 312.09 | 312.22 | 307.41 | 306.51 | 310.05 | 309.73 | |
| 09-10 | 311.90 | 311.99 | 307.44 | 306.55 | 309.99 | 309.66 | |
| 10-11 | 312.14 | 312.28 | 306.90 | 305.89 | 309.85 | 309.49 | |
| 11-12 | 312.05 | 312.17 | 307.07 | 306.10 | 309.66 | 309.26 | |
| 12-13 | 311.43 | 311.41 | 307.26 | 306.33 | 309.49 | 309.05 | |
| 13-14 | 311.69 | 311.73 | 307.43 | 306.54 | 309.56 | 309.13 | |
| 14-15 | 311.29 | 311.24 | 307.24 | 306.31 | 309.33 | 308.85 | |
| 15-16 | 311.31 | 311.27 | 307.00 | 306.01 | 309.68 | 309.28 | |
| 16-17 | 311.37 | 311.34 | 307.44 | 306.55 | 309.65 | 309.24 | |
| 17-18 | 311.44 | 311.42 | 307.18 | 306.23 | 309.73 | 309.34 | |
| 18-19 | 311.58 | 311.60 | 307.23 | 306.29 | 309.93 | 309.58 | |
| 19-20 | 311.72 | 311.77 | 307.64 | 306.79 | 310.09 | 309.78 | |
| 20-21 | 311.70 | 311.74 | 308.32 | 307.62 | 310.20 | 309.91 | |
| 21-22 | 311.72 | 311.77 | 308.28 | 307.57 | 310.28 | 310.01 | |
| 22-23 | 311.73 | 311.78 | 307.92 | 307.14 | 310.21 | 309.93 | |
| 23-24 | 311.98 | 312.08 | 307.88 | 307.09 | 310.12 | 309.82 | |

* Alaska Standard Time

TABLE 15: DIURNAL COURSE OF CARBON DIOXIDE
BARROW, ALASKA CARBON DIOXIDE PROJECT

1962

| Month: | October | | November | | December | |
|--------|----------|--------|-----------------|--------|-----------------|--------|
| | A.S.T. * | Index | Manometer (ppm) | Index | Manometer (ppm) | Index |
| 00-01 | | 312.76 | 313.03 | 315.92 | 316.88 | 317.22 |
| 01-02 | | 312.80 | 313.08 | 315.91 | 316.87 | 317.18 |
| 02-03 | | 312.76 | 313.03 | 315.98 | 316.96 | 317.12 |
| 03-04 | | 312.79 | 313.07 | 316.00 | 316.98 | 317.24 |
| 04-05 | | 312.92 | 313.23 | 316.02 | 317.01 | 317.32 |
| 05-06 | | 312.97 | 313.29 | 316.01 | 316.99 | 317.26 |
| 06-07 | | 312.89 | 313.19 | 316.01 | 316.99 | 317.20 |
| 07-08 | | 312.69 | 312.95 | 315.95 | 316.92 | 317.20 |
| 08-09 | | 312.82 | 313.11 | 316.01 | 316.99 | 317.21 |
| 09-10 | | 312.74 | 313.01 | 315.96 | 316.93 | 317.13 |
| 10-11 | | 312.95 | 313.26 | 315.93 | 316.90 | 317.08 |
| 11-12 | | 312.95 | 313.26 | 315.81 | 316.75 | 316.96 |
| 12-13 | | 312.62 | 312.86 | 315.65 | 316.56 | 317.06 |
| 13-14 | | 313.18 | 313.55 | 315.80 | 316.74 | 317.21 |
| 14-15 | | 313.20 | 313.57 | 315.66 | 316.57 | 317.13 |
| 15-16 | | 313.24 | 313.62 | 315.63 | 316.53 | 316.91 |
| 16-17 | | 313.17 | 313.53 | 315.73 | 316.65 | 316.88 |
| 17-18 | | 312.90 | 313.20 | 315.84 | 316.79 | 317.03 |
| 18-19 | | 312.81 | 313.09 | 315.87 | 316.82 | 316.94 |
| 19-20 | | 312.95 | 313.26 | 315.94 | 316.91 | 317.12 |
| 20-21 | | 312.92 | 313.23 | 316.00 | 316.98 | 317.18 |
| 21-22 | | 313.01 | 313.34 | 316.07 | 317.07 | 317.23 |
| 22-23 | | 313.06 | 313.40 | 315.90 | 316.86 | 317.29 |
| 23-24 | | 312.98 | 313.30 | 315.85 | 316.80 | 317.21 |
| | | | | | | 318.47 |
| | | | | | | 318.42 |
| | | | | | | 318.35 |
| | | | | | | 318.49 |
| | | | | | | 318.59 |
| | | | | | | 318.52 |
| | | | | | | 318.44 |
| | | | | | | 318.44 |
| | | | | | | 318.46 |
| | | | | | | 318.36 |
| | | | | | | 318.30 |
| | | | | | | 318.15 |
| | | | | | | 318.27 |
| | | | | | | 318.46 |
| | | | | | | 318.36 |
| | | | | | | 318.09 |
| | | | | | | 318.05 |
| | | | | | | 318.24 |
| | | | | | | 318.13 |
| | | | | | | 318.35 |
| | | | | | | 318.42 |
| | | | | | | 318.60 |
| | | | | | | 318.55 |
| | | | | | | 318.46 |

TABLE 15: DIURNAL COURSE OF CARBON DIOXIDE
BARROW, ALASKA CARBON DIOXIDE PROJECT

1963

| Month: | January | | February | | March | |
|--------|---------|--------|--------------------|--------|--------------------|--------|
| | A.S.T.* | Index | Manometer (ppm) | Index | Manometer (ppm) | Index |
| 00-01 | | 317.70 | 319.05 | 318.93 | 320.55 | 319.46 |
| 01-02 | | 317.79 | 319.16 | 319.00 | 320.64 | 319.59 |
| 02-03 | | 317.82 | 319.20 | 319.00 | 320.64 | 319.65 |
| 03-04 | | 317.83 | 319.21 | 318.98 | 320.61 | 319.58 |
| 04-05 | | 317.90 | 319.30 | 318.87 | 320.48 | 319.55 |
| 05-06 | | 317.88 | 319.27 | 318.90 | 320.52 | 319.48 |
| 06-07 | | 317.87 | 319.26 | 318.86 | 320.47 | 319.55 |
| 07-08 | | 317.82 | 319.20 | 318.90 | 320.52 | 319.62 |
| 08-09 | | 317.86 | 319.25 | 318.96 | 320.59 | 319.57 |
| 09-10 | | 317.78 | 319.15 | 318.90 | 320.52 | 319.57 |
| 10-11 | | 317.63 | 318.97 | 318.90 | 320.52 | 319.61 |
| 11-12 | | 317.62 | 318.96 | 318.89 | 320.50 | 319.52 |
| 12-13 | | 317.82 | 319.20 | 318.78 | 320.37 | 319.37 |
| 13-14 | | 317.85 | 319.24 | 318.80 | 320.39 | 319.50 |
| 14-15 | | 317.72 | 319.08 | 318.96 | 320.59 | 319.39 |
| 15-16 | | 317.73 | 319.09 | 318.79 | 320.38 | 319.39 |
| 16-17 | | 317.70 | 319.05 | 318.76 | 320.34 | 319.70 |
| 17-18 | | 317.72 | 319.08 | 318.76 | 320.34 | 319.39 |
| 18-19 | | 317.72 | 319.08 | 318.82 | 320.42 | 319.19 |
| 19-20 | | 317.71 | 319.07 | 319.01 | 320.65 | 319.38 |
| 20-21 | | 317.75 | 319.11 | 318.98 | 320.61 | 319.40 |
| 21-22 | | 317.80 | 319.17 | 318.91 | 320.53 | 319.49 |
| 22-23 | | 317.85 | 319.24 | 318.88 | 320.49 | 319.54 |
| 23-24 | | 317.87 | 319.26 | 318.87 | 320.48 | 319.53 |

* Alaska Standard Time

**TABLE 15: DIURNAL COURSE OF CARBON DIOXIDE
BARROW, ALASKA CARBON DIOXIDE PROJECT**

1963

| Month: A.S.T. # | April | | May | | June | |
|--------------------|--------|--------------------|--------|--------------------|--------|--------------------|
| | Index | Manometer (ppm) | Index | Manometer (ppm) | Index | Manometer (ppm) |
| 00-01 | 318.81 | 320.41 | 319.18 | 320.86 | 317.45 | 318.75 |
| 01-02 | 318.88 | 320.49 | 319.22 | 320.91 | 317.44 | 318.74 |
| 02-03 | 318.96 | 320.59 | 319.26 | 320.95 | 317.46 | 318.76 |
| 03-04 | 318.95 | 320.58 | 319.28 | 320.98 | 317.40 | 318.69 |
| 04-05 | 319.00 | 320.64 | 319.30 | 321.00 | 317.46 | 318.76 |
| 05-06 | 319.03 | 320.67 | 319.28 | 320.98 | 317.46 | 318.76 |
| 06-07 | 319.06 | 320.71 | 319.26 | 320.95 | 317.52 | 318.83 |
| 07-08 | 319.00 | 320.64 | 319.32 | 321.03 | 317.60 | 318.93 |
| 08-09 | 319.05 | 320.70 | 319.39 | 321.11 | 317.62 | 318.96 |
| 09-10 | 319.15 | 320.82 | 319.44 | 321.17 | 317.79 | 319.16 |
| 10-11 | 319.00 | 320.64 | 319.46 | 321.20 | 317.63 | 318.97 |
| 11-12 | 318.83 | 320.43 | 319.41 | 321.14 | 317.72 | 319.08 |
| 12-13 | 318.89 | 320.50 | 319.42 | 321.15 | 317.61 | 318.94 |
| 13-14 | 319.14 | 320.81 | 319.45 | 321.19 | 317.68 | 319.03 |
| 14-15 | 319.11 | 320.77 | 319.46 | 321.20 | 317.68 | 319.03 |
| 15-16 | 319.00 | 320.64 | 319.29 | 320.99 | 317.62 | 318.96 |
| 16-17 | 319.04 | 320.69 | 319.26 | 320.95 | 317.59 | 318.92 |
| 17-18 | 318.86 | 320.47 | 319.28 | 320.98 | 317.53 | 318.85 |
| 18-19 | 318.76 | 320.34 | 319.31 | 321.02 | 317.51 | 318.82 |
| 19-20 | 318.97 | 320.60 | 319.32 | 321.03 | 317.57 | 318.89 |
| 20-21 | 318.84 | 320.44 | 319.33 | 321.04 | 317.48 | 318.79 |
| 21-22 | 318.82 | 320.42 | 319.28 | 320.98 | 317.38 | 318.66 |
| 22-23 | 318.89 | 320.50 | 319.21 | 320.89 | 317.39 | 318.68 |
| 23-24 | 318.77 | 320.36 | 319.17 | 320.84 | 317.39 | 318.68 |

TABLE 15: DIURNAL COURSE OF CARBON DIOXIDE
BARROW, ALASKA CARBON DIOXIDE PROJECT

| 1963 | Month: | July | | | August | | | September | | |
|------|--------|--------|--------|--------------------|--------|--------------------|--------|--------------------|-------|--------------------|
| | | A.S.T. | Index | Manometer (ppm) | Index | Manometer (ppm) | Index | Manometer (ppm) | Index | Manometer (ppm) |
| | 00-01 | | 313.87 | 314.39 | 309.88 | 309.52 | 311.26 | 311.21 | | |
| | 01-02 | | 313.76 | 314.25 | 310.00 | 309.67 | 311.21 | 311.14 | | |
| | 02-03 | | 313.74 | 314.23 | 310.14 | 309.84 | 311.11 | 311.02 | | |
| | 03-04 | | 313.67 | 314.14 | 310.17 | 309.88 | 310.96 | 310.84 | | |
| | 04-05 | | 313.61 | 314.07 | 310.30 | 310.04 | 311.10 | 311.01 | | |
| | 05-06 | | 313.48 | 313.91 | 310.21 | 309.93 | 311.00 | 310.89 | | |
| | 06-07 | | 313.49 | 313.92 | 310.15 | 309.35 | 310.93 | 310.80 | | |
| | 07-08 | | 313.50 | 313.94 | 309.95 | 309.61 | 310.94 | 310.82 | | |
| | 08-09 | | 313.66 | 314.13 | 309.96 | 309.62 | 310.96 | 310.84 | | |
| | 09-10 | | 313.65 | 314.12 | 310.13 | 309.83 | 310.89 | 310.75 | | |
| | 10-11 | | 313.77 | 314.26 | 310.08 | 309.77 | 310.91 | 310.78 | | |
| | 11-12 | | 313.62 | 314.08 | 310.01 | 309.68 | 311.01 | 310.90 | | |
| | 12-13 | | 313.79 | 314.29 | 309.94 | 309.60 | 311.01 | 310.90 | | |
| | 13-14 | | 313.74 | 314.23 | 309.88 | 309.52 | 311.02 | 310.91 | | |
| | 14-15 | | 314.02 | 314.57 | 309.80 | 309.43 | 310.98 | 310.86 | | |
| | 15-16 | | 313.48 | 313.91 | 310.06 | 309.74 | 310.87 | 310.73 | | |
| | 16-17 | | 313.62 | 314.08 | 309.73 | 309.34 | 310.84 | 310.69 | | |
| | 17-18 | | 313.41 | 313.83 | 309.73 | 309.34 | 310.79 | 310.63 | | |
| | 18-19 | | 313.67 | 314.14 | 309.58 | 309.16 | 310.83 | 310.68 | | |
| | 19-20 | | 313.63 | 314.09 | 309.59 | 309.17 | 310.84 | 310.69 | | |
| | 20-21 | | 313.65 | 314.12 | 309.54 | 309.11 | 311.00 | 310.89 | | |
| | 21-22 | | 313.67 | 314.14 | 309.73 | 309.34 | 311.25 | 311.19 | | |
| | 22-23 | | 313.62 | 314.08 | 309.75 | 309.37 | 310.95 | 310.83 | | |
| | 23-24 | | 313.58 | 314.03 | 309.82 | 309.45 | 311.26 | 311.21 | | |

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|-----------|----------|------------|--------------------|-------------|---------------------|-------------|----------------------------|-----------|
| | Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Conc. (ppm) | Manometric Av. Conc. (ppm) | Sheet No. |
| <u>1961</u> | | | | | | | | | |
| | i-3 | Sept. 15 | 1030 | PB-JK | 309.22 | | 308.70 | | 230 |
| | i-4 | Sept. 15 | 1030 | PB-JK | 309.32 | 309.27 | 308.85 | 308.77 | 230 |
| | i-7 | Oct. 16 | 1600 | PB-JK | 313.22 | | 313.61 | | 230 |
| | i-8 | Oct. 16 | 1600 | PB-JK | 313.13 | 313.17 | 313.50 | 313.55 | 230 |
| | i-9 | Nov. 22 | 1500 | PB-JK | 314.86* | | 315.59 | | 235 |
| | i-10 | Nov. 22 | 1500 | PB-JK | 315.23 | 314.86* | 316.04 | 315.59 | 235 |
| | i-11 | Dec. 12 | 1415 | PB-JK | 320.62 | | -- | | 235 |
| | i-12 | Dec. 12 | 1415 | PB-JK | 316.51* | 316.51* | 317.60 | 317.60 | 235 |
| | I-129 | Dec. 15 | 1400 | PB-JK | 317.89 | | 319.28 | | 248 |
| | I-132 | Dec. 15 | 1400 | PB-JK | 318.07 | 317.98 | 319.50 | 319.39 | 248 |

* Single Flask Values Only.

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | | | | | | | | | | |
|-----------|---------|------------|--------------------|-------------|---------------------|-------------|----------------------------|-----------|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Conc. (ppm) | Manometric Av. Conc. (ppm) | Sheet No. | | |
| 1962 | | | | | | | | | | |
| I-128 | Jan. 1 | 1545 | PB-JK | 317.76 | | 319.13 | | 246 | | |
| I-131 | Jan. 1 | 1545 | PB-JK | 317.10* | 317.10* | 318.32 | 318.32 | 246 | | |
| I-127 | Jan. 15 | 1545 | PB-JK | 317.42 | | 318.71 | | 248 | | |
| I-130 | Jan. 15 | 1545 | PB-JK | 317.33 | 317.37 | 318.50 | 318.65 | 248 | | |
| I-124 | Feb. 1 | 1530 | PB-JK | 317.94 | | 319.35 | | 245 | | |
| I-125 | Feb. 1 | 1530 | PB-JK | 317.98 | 317.96 | 319.39 | 319.37 | 248 | | |
| I-121 | Feb. 15 | 1530 | PB-JK | 318.89 | | 320.50 | | 245 | | |
| I-122 | Feb. 15 | 1530 | PB-JK | 318.70 | 318.79 | 320.27 | 320.38 | 245 | | |
| I-123 | Mar. 1 | 1445 | PB-JK | 317.57 | | 318.89 | | 245 | | |
| I-126 | Mar. 1 | 1445 | PB-JK | 317.76 | 317.66 | 319.13 | 319.01 | 246 | | |
| L-91 | Mar. 15 | 1845 | PB-JK | 317.28 | | 318.55 | | 245 | | |
| L-92 | Mar. 15 | 1845 | PB-JK | 317.28 | 317.28 | 318.55 | 318.55 | 245 | | |
| L-9 | Apr. 2 | 1550 | PB-JK | 317.18 | | 318.42 | | 251 | | |
| L-10 | Apr. 2 | 1550 | PB-JK | 317.37 | 317.27 | 318.65 | 318.53 | 251 | | |
| I-137 | Apr. 15 | 1430 | PB-DB | 318.03 | | 319.46 | | 254 | | |
| I-138 | Apr. 15 | 1430 | PB-DB | 318.03 | 318.03 | 319.46 | 319.46 | 254 | | |
| I-135 | May 1 | 1550 | PB-DB | 319.14 | | 320.81 | | 254 | | |
| I-139 | May 1 | 1550 | PB-DB | 319.14 | 319.14 | 320.81 | 320.81 | 254 | | |

* Single Flask Values Only.

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------|-----------|----------|------------|--------------------|-------------|---------------------|-------------|----------------------------|-----------|
| | Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Conc. (ppm) | Manometric Av. Conc. (ppm) | Sheet No. |
| | | 1962 | | | | | | | |
| | I-140 | May 15 | 1500 | PB-DB | 318.96 | 318.96 | 320.59 | 320.59 | 253 |
| | I-141 | May 15 | 1500 | PB-DB | 318.96 | 318.96 | 320.59 | 320.59 | 253 |
| | I-142 | June 1 | 1520 | PB-DB | 318.77 | 318.85 | 320.36 | 320.45 | 254 |
| | L-60 | June 1 | 1520 | PB-PD | 318.93 | 318.85 | 320.55 | 320.45 | 251 |
| | I-143 | June 15 | 1445 | PB-JK | 318.40 | 318.40 | 319.91 | 319.91 | 253 |
| | I-144 | June 15 | 1445 | PB-JK | 318.40 | 318.40 | 319.91 | 319.91 | 253 |
| | I-2 | July 1 | 1355 | PB-DB | 314.48 | 314.53 | 315.08 | 315.14 | 268 |
| | I-1 | July 1 | 1355 | PB-DB | 314.59 | 314.53 | 315.21 | 315.14 | 268 |
| | I-3 | July 15 | 1340 | PB-JK | 313.24 | 313.14 | 313.57 | 313.44 | 268 |
| | I-4 | July 15 | 1340 | PB-JK | 313.04 | 313.14 | 313.31 | 313.44 | 268 |
| | I-6 | Aug. 1 | 1300 | PB-JK | 310.35 | 310.35 | 310.05 | 310.05 | 268 |
| | I-5 | Aug. 1 | 1300 | PB-JK | 310.35 | 310.35 | 310.05 | 310.05 | 268 |
| | I-7 | Aug. 15 | 1045 | PB-DB | 307.45 | 307.45 | 306.56 | 306.56 | 268 |
| | I-8 | Aug. 15 | 1045 | PB-DB | 307.45 | 307.45 | 306.56 | 306.56 | 268 |
| | I-9 | Sept. 1 | 0900 | PB-DB | 308.28 | 307.45 | 307.54 | 306.56 | 266 |
| | I-192 | Sept. 1 | 0900 | PB-DB | 308.39 | 308.33 | 307.66 | 307.60 | 266 |
| | I-10 | Sept. 15 | 1600 | PB-JU | 308.90 | 308.33 | 308.33 | 307.60 | 268 |
| | I-11 | Sept. 15 | 1600 | PB-JU | 309.10 | 309.00 | 308.57 | 308.45 | 268 |

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | | | | | | | | | | |
|-----------|---------|------------|--------------------|-------------|---------------------|-------------|-----------------|-----------|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Manometric | | Sheet No. | | |
| | | | | | | Conc. (ppm) | Av. Conc. (ppm) | | | |
| 1962 | | | | | | | | | | |
| 251 | Oct. 1 | 1400 | PB-JU | 312.29 | | 312.46 | | 276 | | |
| 252 | Oct. 1 | 1400 | PB-JU | 312.29 | 312.29 | 312.46 | 312.46 | 276 | | |
| 249 | Oct. 15 | 1450 | PB-DB | 312.66 | | 312.90 | | 276 | | |
| 250 | Oct. 15 | 1450 | PB-DB | 312.47 | 312.56 | 312.67 | 312.78 | 276 | | |
| 181 | Nov. 1 | 1500 | PB-JU | 316.03 | | 317.01 | | 276 | | |
| 182 | Nov. 1 | 1500 | PB-JU | 316.03 | 316.03 | 317.01 | 317.01 | 276 | | |
| 183 | Nov. 15 | 1300 | PB-JU | 316.40 | | 317.46 | | 276 | | |
| 184 | Nov. 15 | 1300 | PB-JU | 316.50 | 316.45 | 317.57 | 317.51 | 276 | | |
| 231 | Dec. 15 | 1100 | PB-JU | 317.06 | | 318.25 | | 278 | | |
| 232 | Dec. 15 | 1100 | PB-JU | 316.96 | 317.01 | 318.14 | 318.19 | 278 | | |

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|---------|------------|--------------------|-------------|---------------------|-------------|-----------------|-----------|---|---|
| Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Manometric | | Sheet No. | | |
| | | | | | | Conc. (ppm) | AV. Conc. (ppm) | | | |
| 1963 | | | | | | | | | | |
| I-3 | Jan. 1 | 2230 | PB-JK | 317.95 | | 319.35 | | 277 | | |
| I-4 | Jan. 1 | 2230 | PB-JK | 318.05 | 318.00 | 319.46 | 319.40 | 277 | | |
| I-1 | Feb. 1 | 1200 | PB-JK | 320.94 | | 323.00 | | 301 | | |
| I-2 | Feb. 1 | 1200 | PB-JK | 321.05 | 320.99 | 323.14 | 323.07 | 301 | | |
| I-3 | Feb. 15 | 1300 | PB-JU | 320.07 | | 321.94 | | 302 | | |
| I-4 | Feb. 15 | 1300 | PB-JU | 320.07 | 320.07 | 321.94 | 321.94 | 302 | | |
| I-5 | Mar. 1 | 0900 | PB-JU | 319.53 | | 321.28 | | 302 | | |
| I-6 | Mar. 1 | 0900 | PB-JU | 319.64 | 319.58 | 321.42 | 321.35 | 302 | | |
| I-8 | Mar. 15 | 1445 | PB-DB | 320.73 | | 322.75 | | 302 | | |
| I-9 | Mar. 15 | 1445 | PB-DB | 320.62 | 320.67 | 322.61 | 322.68 | 302 | | |
| I-7 | Apr. 4 | 1330 | PB-LS | 319.77 | | 321.58 | | 340 | | |
| I-12 | Apr. 4 | 1330 | PB-LS | 319.57 | 319.67 | 321.33 | 321.45 | 340 | | |
| I-73 | Apr. 16 | 1600 | PB-LS | 321.57 | | 323.77 | | 344 | | |
| I-74 | Apr. 16 | 1600 | PB-LS | 321.27 | 321.42 | 323.40 | 323.58 | 344 | | |
| I-181 | May 2 | 1530 | PB-LS | 320.08 | | 321.95 | | 344 | | |
| I-182 | May 2 | 1530 | PB-LS | 320.27 | 320.17 | 322.18 | 322.06 | 344 | | |
| I-183 | May 16 | 1600 | PB-LS | 323.06 | | 325.58 | | 344 | | |
| I-184 | May 16 | 1600 | PB-LS | 321.97* | 321.97* | 324.26 | 324.26 | 344 | | |
| I-185 | June 1 | 2030 | PB-LS | 319.98 | | 321.83 | | 344 | | |
| I-186 | June 1 | 2030 | PB-LS | 319.78 | 319.88 | 321.59 | 321.71 | 344 | | |
| I-187 | June 17 | 0900 | PB-LS | 319.09 | | 320.75 | | 344 | | |
| I-188 | June 17 | 0900 | PB-LS | 318.79 | 318.94 | 320.38 | 320.56 | 344 | | |

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | | | | | | | | | | |
|-----------|----------|------------|--------------------|-------------|---------------------|-------------|-----------------|-----------|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Manometric | | Sheet No. | | |
| | | | | | | Conc. (ppm) | Av. Conc. (ppm) | | | |
| 1963 | | | | | | | | | | |
| I-189 | July 1 | 1600 | PB-LS | 316.50 | | 317.59 | | 344 | | |
| I-190 | July 1 | 1600 | PB-LS | 316.31 | 316.40 | 317.36 | 317.47 | 344 | | |
| I-191 | July 15 | 1200 | PB-LS | 316.65* | 316.65* | 317.77 | 317.77 | 346 | | |
| I-97 | Aug. 1 | 1130 | PB-LS | 312.91 | | 313.22 | | 346 | | |
| I-98 | Aug. 1 | 1130 | PB-LS | 312.52 | 312.71 | 312.74 | 312.98 | 346 | | |
| I-99 | Aug. 16 | 1330 | PB-LS | 311.64 | | 311.67 | | 346 | | |
| I-100 | Aug. 16 | 1330 | PB-LS | 311.34 | 311.49 | 311.30 | 311.48 | 346 | | |
| I-101 | Sept. 3 | 1420 | PB-LS | 310.95 | | 310.83 | | 342 | | |
| I-221 | Sept. 3 | 1420 | PB-LS | 310.55 | 310.75 | 310.34 | 310.58 | 346 | | |
| I-218 | Sept. 15 | 1430 | PB-LS | 314.29* | | 314.90 | | 346 | | |
| I-222 | Sept. 15 | 1430 | PB-LS | 316.26 | 314.29* | --- | 314.90 | 346 | | |
| I-217 | Oct. 1 | 1740 | PB-LS | 315.28 | | 316.10 | | 346 | | |
| I-220 | Oct. 1 | 1740 | PB-LS | 314.98 | 315.13 | 315.74 | 315.92 | 346 | | |
| I-223 | Oct. 15 | 1400 | PB-LS | 315.96 | | 316.93 | | 346 | | |
| I-226 | Oct. 15 | 1400 | PB-LS | 315.37 | 315.66 | 315.92 | 316.42 | 346 | | |

* Single Flask Values Only.

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 2 3 4 5 6 7 8 9 | | | | | | | | |
|------------------------|--------|------------|--------------------|---------|---------------------|------------------------|----------------------------|-----------|
| Flask No. | Date | Local Time | Place and Observer | Index | Average Index (ppm) | Manometric conc. (ppm) | Manometric Av. Conc. (ppm) | Sheet No. |
| <u>1964</u> | | | | | | | | |
| UW-16 | Mar. 2 | 1730 | PB-LS | 321.65 | | 323.87 | | 357 |
| UW-17 | Mar. 2 | 1730 | PB-LS | 321.32 | 321.48 | 323.46 | 323.66 | 357 |
| UW-18 | Apr. 1 | 1225 | PB-BL | 323.52* | | 326.15 | | 357 |
| UW-19 | Apr. 1 | 1225 | PB-BL | 336.14 | 323.52* | -- | 326.15 | 357 |
| UW-20 | May 1 | 1650 | PB-BL | 322.20 | | 324.54 | | 357 |
| UW-21 | May 1 | 1650 | PB-BL | 321.35 | 321.77 | 323.50 | 324.02 | 357 |
| UW-22 | May 18 | 1213 | PB-BL | 322.54* | | 324.95 | | 357 |
| UW-23 | May 18 | 1213 | PB-BL | 324.90 | 322.54* | -- | 324.95 | 357 |

* Single Flask Values Only.

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | | | | | | | | | | |
|-------------|----------|------------|--------------------|-------------|---------------------|-------------|-----------------|-------|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Manometric | | Sheet | | |
| | | | | | | Conc. (ppm) | Av. Conc. (ppm) | | | |
| <u>1961</u> | | | | | | | | | | |
| i-2 | Aug. 19 | 1545 | AR-HP | 307.83 | 307.83 | 307.03 | 307.03 | 230 | | |
| i-5 | Sept. 18 | 1645 | AR-JK | 310.06 | | 309.74 | | 230 | | |
| i-6 | Sept. 18 | 1645 | AR-JK | 310.06 | 310.06 | 309.74 | 309.74 | 230 | | |
| L-45 | Dec. 11 | 2010 | AR-CC | 316.49 | | 317.58 | | 228 | | |
| L-46 | Dec. 11 | 2010 | AR-CC | 316.49 | 316.49 | 317.58 | 317.58 | 228 | | |
| L-23 | Dec. 17 | 1645 | AR-CC | 317.59 | | 318.92 | | 228 | | |
| L-24 | Dec. 17 | 1645 | AR-CC | 317.68 | 317.63 | 319.03 | 318.97 | 228 | | |

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 2 3 4 5 6 7 8 9 | | | | | | | | |
|------------------------|---------|------------|--------------------|-------------|---------------------|------------------------|----------------------------|-----------|
| Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Manometric Conc. (ppm) | Manometric Av. Conc. (ppm) | Sheet No. |
| 1962 | | | | | | | | |
| I-13 | June 15 | 0225 | T-3-RS | 315.92 | | 316.88 | | 265 |
| I-16 | June 15 | 0225 | T-3-RS | 315.61 | 315.76 | 316.51 | 316.69 | 265 |
| I-17 | June 30 | 0126 | T-3-RS | 316.54 | | 317.64 | | 264 |
| I-19 | June 30 | 0126 | T-3-RS | 316.54 | 316.54 | 317.64 | 317.64 | 264 |
| I-18 | July 15 | 0150 | T-3-RS | 313.55 | | 314.00 | | 265 |
| I-22 | July 15 | 0150 | T-3-RS | 313.86 | 313.70 | 314.37 | 314.18 | 265 |
| I-14 | July 30 | 0244 | T-3-RS | 311.59 | | 311.61 | | 265 |
| I-15 | July 30 | 0244 | T-3-RS | 312.00 | 311.79 | 312.11 | 311.86 | 265 |
| I-21 | Aug. 15 | 0247 | -- | -- | -- | -- | -- | 265 |
| I-24 | Aug. 15 | 0247 | T-3-RS | 310.55 | 310.55 | 310.34 | 310.34 | 265 |
| I-20 | Aug. 30 | 0600 | T-3-RS | 308.28 | | 307.54 | | 265 |
| I-23 | Aug. 30 | 0600 | T-3-RS | 308.28 | 308.28 | 307.54 | 307.54 | 265 |

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | | | | | | | | | | |
|-----------|---------|------------|--------------------|-------------|---------------------|-------------|-----------------|-----------|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Manometric | | Sheet No. | | |
| | | | | | | Conc. (ppm) | Av. Conc. (ppm) | | | |
| 1962 | | | | | | | | | | |
| L-77 | Jan. 3 | 1645 | AR-CC | 318.34 | | 319.83 | | 243 | | |
| L-78 | Jan. 3 | 1645 | AR-CC | 318.15 | 318.24 | 319.60 | 319.71 | 243 | | |
| L-101 | Jan. 16 | 2000 | AR-CC | 318.52 | | 320.05 | | 243 | | |
| L-102 | Jan. 16 | 2000 | AR-CC | 318.88 | 318.70 | 320.49 | 320.27 | 243 | | |
| L-71 | Feb. 2 | 1400 | AR-AH | 319.45 | | 321.19 | | 245 | | |
| L-72 | Feb. 2 | 1400 | AR-AH | 319.45 | 319.45 | 321.19 | 321.19 | 245 | | |
| L-95 | Feb. 15 | 1700 | AR-AH | 318.51 | 318.51 | 320.04 | 320.04 | 245 | | |
| L-96 | Feb. 15 | 1700 | AR-AH | -- | -- | -- | -- | 245 | | |
| L-93 | Mar. 1 | 1440 | AR-AH | 318.04 | | 319.47 | | 245 | | |
| L-94 | Mar. 1 | 1440 | AR-AH | 318.04 | 318.04 | 319.47 | 319.47 | 245 | | |
| L-25 | Mar. 16 | 0220 | AR-CC | 317.42 | | 318.71 | | 245 | | |
| L-26 | Mar. 16 | 0220 | AR-CC | 317.60 | 317.51 | 318.93 | 318.82 | 243 | | |
| L-57 | Apr. 1 | 1415 | AR-RS | 317.83 | | 319.21 | | 243 | | |
| L-58 | Apr. 1 | 1415 | AR-RS | 317.83 | 317.83 | 319.21 | 319.21 | 251 | | |
| L-33 | Apr. 16 | 1425 | AR-RS | 317.83 | | 319.21 | | 251 | | |
| L-34 | Apr. 16 | 1425 | AR-RS | 318.01 | 317.92 | 319.43 | 319.32 | 251 | | |
| L-83 | May 2 | 1615 | AR-RS | 318.93 | | 320.55 | | 251 | | |
| L-84 | May 2 | 1615 | AR-RS | 318.84 | 318.88 | 320.44 | 320.49 | 251 | | |

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | | | | | | | | | | |
|-----------|----------|------------|--------------------|-------------|---------------------|-------------|-----------------|-----------|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Manometric | | Sheet No. | | |
| | | | | | | Conc. (ppm) | Av. Conc. (ppm) | | | |
| 1962 | | | | | | | | | | |
| L-47 | May 16 | 1810 | AR-RS | 318.66 | | 320.22 | | 251 | | |
| L-48 | May 16 | 1810 | AR-RS | 318.75 | 318.70 | 320.33 | 320.27 | 251 | | |
| L-99 | June 2 | 1945 | AR-RS | 319.11 | | 320.77 | | 251 | | |
| L-100 | June 2 | 1945 | AR-RS | 319.11 | 319.11 | 320.77 | 320.77 | 251 | | |
| L-103 | June 16 | 1425 | AR-PD | 319.18 | | 320.86 | | 255 | | |
| L-104 | June 16 | 1425 | AR-PD | 319.18 | 319.18 | 320.86 | 320.86 | 255 | | |
| L-3 | July 2 | 1455 | AR-PD | 316.02 | | 317.01 | | 263 | | |
| L-4 | July 2 | 1455 | AR-PD | 316.33 | 316.17 | 317.38 | 317.19 | 263 | | |
| L-53 | July 16 | 1450 | AR-PD | 314.79 | | 315.51 | | 263 | | |
| L-54 | July 16 | 1450 | AR-PD | 314.79 | 314.79 | 315.51 | 315.51 | 263 | | |
| L-45 | Aug. 2 | 1425 | AR-PB | 310.14 | | 309.84 | | 263 | | |
| L-46 | Aug. 2 | 1425 | AR-PD | 310.14 | 310.14 | 309.84 | 309.84 | 263 | | |
| L-25 | Aug. 16 | 1410 | AR-PD | 308.49 | | 307.83 | | 263 | | |
| L-26 | Aug. 16 | 1410 | AR-PD | 308.49 | 308.49 | 307.83 | 307.83 | 263 | | |
| L-97 | Sept. 2 | 1435 | AR-PD | 307.87 | | 307.07 | | 263 | | |
| L-98 | Sept. 2 | 1435 | AR-PD | 307.97 | 307.92 | 307.20 | 307.13 | 263 | | |
| L-101 | Sept. 16 | 1440 | AR-PD | 308.28 | | 307.57 | | 263 | | |
| L-102 | Sept. 16 | 1440 | AR-PD | 308.18 | 308.23 | 307.45 | 307.51 | 263 | | |

**TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------|-----------|-------------|------------|--------------------|-------------|---------------------|-------------|----------------------------|-----------|
| | Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Conc. (ppm) | Manometric Av. Conc. (ppm) | Sheet No. |
| | | <u>1962</u> | | | | | | | |
| | I-245 | Oct. 2 | 1430 | AR-PD | 312.28 | 312.28 | 312.45 | 312.45 | 276 |
| | I-246 | Oct. 2 | 1430 | AR-PD | -- | -- | -- | -- | 276 |
| | I-247 | Oct. 15 | 1050 | AR-AH | 314.16 | | 314.74 | | 276 |
| | I-248 | Oct. 15 | 1050 | AR-AH | 314.34 | 314.25 | 314.96 | 314.85 | 276 |
| | I-10 | Nov. 2 | 1200 | AR-AH | 314.99 | | 315.75 | | 277 |
| | I-9 | Nov. 2 | 1200 | AR-AH | 314.99 | 314.99 | 315.75 | 315.75 | 277 |
| | I-11 | Nov. 16 | 1040 | AR-AH | 316.96 | | 318.15 | | 278 |
| | I-12 | Nov. 16 | 1040 | AR-AH | 317.06 | 317.01 | 318.27 | 318.21 | 278 |
| | I-6 | Dec. 2 | 1100 | AR-AH | 317.28 | | 318.54 | | 277 |
| | I-5 | Dec. 2 | 1100 | AR-AH | 317.38 | 317.33 | 318.66 | 318.60 | 277 |
| | I-8 | Dec. 3 | 1040 | AR-AH | 316.42 | | 317.49 | | 277 |
| | I-7 | Dec. 3 | 1040 | AR-AH | 316.42 | 316.42 | 317.49 | 317.49 | 277 |

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------|-----------|---------|------------|--------------------|-------------|---------------------|-------------|----------------------------|-----------|
| | | | | | | | | | |
| | Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Conc. (ppm) | Manometric Av. Conc. (ppm) | Sheet No. |
| | | 1963 | | | | | | | |
| | I-63 | Jan. 2 | 1505 | AR-AH | 321.04 | | 323.12 | | 303 |
| | I-64 | Jan. 2 | 1505 | AR-AH | 321.26* | 321.16* | 323.39 | 323.39 | 303 |
| | I-61 | Jan. 16 | 1505 | AR-RS | 335.58 | | -- | -- | 303 |
| | I-158 | Feb. 4 | 1440 | AR-RS | 320.71 | | 322.72 | | 303 |
| | I-157 | Feb. 4 | 1440 | AR-RS | 320.04 | 320.37 | 321.90 | 322.31 | 303 |
| | I-161 | Feb. 20 | 0025** | AR-RS | 320.72 | | 322.73 | | 303 |
| | I-162 | Feb. 20 | 0025** | AR-RS | 320.72 | 320.72 | 322.73 | 322.73 | 303 |
| | I-159 | Mar. 2 | 0130 | AR-RS | -- | -- | -- | -- | 303 |
| | I-160 | Mar. 2 | 0130 | AR-RS | 319.16* | 319.16* | 320.83 | 320.83 | 303 |
| | I-11 | Mar. 16 | 2250 | AR-RS | 319.47 | | 321.21 | | 340 |
| | I-10 | Mar. 16 | 2250 | AR-RS | 319.28 | 319.37 | 320.98 | 321.09 | 340 |
| | I-76 | Apr. 3 | 0530 | AR-RS | 320.06 | | 321.93 | | 340 |
| | I-77 | Apr. 3 | 0530 | AR-RS | 320.35 | 320.20 | 322.28 | 322.10 | 340 |
| | I-75 | Apr. 18 | 0145 | AR-RS | 319.86 | | 321.69 | | 340 |
| | I-84 | Apr. 18 | 0145 | AR-RS | 319.96 | 319.91 | 321.81 | 321.75 | 340 |
| | I-78 | May 2 | 0050 | AR-RS | 320.75 | | 322.77 | | 340 |
| | I-81 | May 2 | 0050 | AR-RS | 320.75 | 320.75 | 322.77 | 322.77 | 340 |

* Single Flask Values Only.

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TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------|-----------|----------|------------|--------------------|-------------|---------------------|------------------------|-----------------|-----------|
| | Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Manometric Conc. (ppm) | Av. Conc. (ppm) | Sheet No. |
| | | 1963 | | | | | | | |
| | I-83 | May 17 | 1301** | AR-RS | 320.55 | | 322.53 | | 340 |
| | I-79 | May 17 | 1300** | AR-RS | 320.35 | 320.45 | 322.28 | 322.40 | 340 |
| | I-108 | June 16 | 1150 | AR-AH | 320.54 | | 322.51 | | 342 |
| | I-105 | June 16 | 1150 | AR-AH | 321.22 | 320.88 | 323.34 | 322.92 | 342 |
| | I-107 | July 2 | 1235 | AR-AH | 319.28 | | 320.98 | | 342 |
| | I-106 | July 2 | 1235 | AR-AH | 319.28 | 319.28 | 320.98 | 320.98 | 342 |
| | I-104 | July 16 | 1200 | AR-AH | 328.96 | | -- | -- | 342 |
| | I-103 | July 16 | 1200 | AR-AH | 317.92* | 317.92* | 319.32 | 319.32 | 342 |
| | I-171 | Aug. 1 | 1145 | AR-AH | -- | -- | -- | -- | 342 |
| | I-170 | Aug. 1 | 1145 | AR-AH | 314.53 | 314.53 | 315.19 | 315.19 | 342 |
| | I-174 | Aug. 16 | 1145 | AR-AH | 312.50 | | 312.72 | | 342 |
| | I-173 | Aug. 16 | 1145 | AR-AH | 311.73 | 312.11 | 311.78 | 312.25 | 342 |
| | I-175 | Sept. 1 | 1800 | AR-AH | 310.57 | | 310.36 | | 342 |
| | I-178 | Sept. 1 | 1800 | AR-AH | 309.79 | 310.18 | 309.41 | 309.88 | 342 |
| | I-172 | Sept. 15 | 1420 | AR-AH | 311.53 | | 311.53 | | 342 |
| | I-179 | Sept. 15 | 1420 | AR-AH | 311.73 | 311.63 | 311.78 | 311.65 | 342 |

* Single Flask Values Only.

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TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 2 3 4 5 6 7 8 9 | | | | | | | | |
|------------------------|---------|------------|--------------------|-------------|---------------------|------------------------|----------------------------|-----------|
| Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Manometric Conc. (ppm) | Manometric Av. Conc. (ppm) | Sheet No. |
| 1963 | | | | | | | | |
| I-176 | Oct. 1 | 1525 | AR-AH | 311.92 | 311.92 | 312.01 | 312.01 | 342 |
| I-177 | Oct. 1 | 1525 | AR-AH | -- | -- | -- | -- | 342 |
| I-169 | Oct. 15 | 1930 | AR-AH | 312.89 | | 313.19 | | 343 |
| I-180 | Oct. 15 | 1930 | AR-AH | 313.18 | 313.03 | 313.55 | 313.37 | 343 |
| I | Nov. 15 | 2130** | AR-PW | 318.16 | | 319.61 | | 358 |
| II | Nov. 15 | 2130** | AR-PW | 318.26 | 318.21 | 319.74 | 319.67 | 358 |
| I-228 | Dec. 18 | 0040** | AR-PW | 319.29 | | 320.99 | | 344 |
| I-225 | Dec. 18 | 0040** | AR-PW | 319. | 319.48 | 321.47 | 322.23 | 344 |

TABLE 16: INDICES AND MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------|-----------|----------|------------|--------------------|-------------|---------------------|-------------|----------------------------|-----------|
| | Flask No. | Date | Local Time | Place and Observer | Index (ppm) | Average Index (ppm) | Conc. (ppm) | Manometric Av. Conc. (ppm) | Sheet No. |
| | I-219 | Jan. 1 | 2140** | AR-PW | 321.57 | 321.57 | 323.77 | 323.77 | 344 |
| | UW-7 | Mar. 3 | 2120** | AR-RP | 320.27 | 320.27 | 322.18 | 322.18 | 359 |
| | UW-5 | Mar. 3 | 2120** | AR-RP | 320.53 | 320.40 | 322.50 | 322.34 | 359 |
| | UW-6 | Mar. 16 | 0130** | AR-RP | 334.28 | -- | -- | -- | 359 |
| | UW-8 | Mar. 16 | 0130** | AR-RP | 319.95* | 319.95* | 321.79 | 321.79 | 359 |
| | UW-2 | Apr. 3 | 0800** | AR-RP | 320.92 | 320.92 | 322.98 | 322.98 | 359 |
| | UW-1 | Apr. 3 | 0800** | AR-RP | 320.92 | 320.92 | 322.98 | 322.98 | 359 |
| | UW-3 | Apr. 16 | 1800** | AR-RP | 327.18 | -- | -- | -- | 359 |
| | UW-4 | Apr. 16 | 1800** | AR-RP | -- | -- | -- | -- | 359 |
| | UW-10 | May 16 | 1800** | AR-RP | 321.89 | 321.89 | 324.16 | 324.16 | 359 |
| | UW-9 | May 16 | 1800** | AR-RP | 321.76 | 321.82 | 324.00 | 324.08 | 359 |
| | UW-15 | June 3 | 1130** | AR-RP | 321.82* | 321.82 | 324.07 | 324.07 | 359 |
| | UW-13 | June 3 | 1130** | AR-RP | 323.43 | 321.82 | 326.04 | 324.07 | 359 |
| | UW-25 | June 16 | 2310** | AR-BM | -- | -- | -- | -- | 359 |
| | UW-32 | June 16 | 2310** | AR-BM | 347.38 | 347.38 | -- | -- | 359 |
| | UW-26 | July 2 | 2055** | AR-RR | 318.85 | 319.14 | 320.45 | 320.45 | 360 |
| | UW-27 | July 2 | 2055** | AR-RR | 319.43 | 319.14 | 321.16 | 320.80 | 360 |
| | UW-28 | July 18 | 0538 * | AR-BM | 316.20 | 316.20 | 317.23 | 317.23 | 360 |
| | UW-11 | July 18 | 0538 ** | AR-BM | -- | -- | -- | -- | 360 |
| | UW-30 | Aug. 2 | 0015** | AR-RR | -- | -- | -- | -- | 360 |
| | UW-31 | Aug. 2 | 0015** | AR-RR | 314.91 | 314.91 | 315.65 | 315.65 | 360 |
| | UW-29 | Aug. 24 | 0040** | AR-BM | -- | -- | -- | -- | 360 |
| | UW-12 | Sept. 15 | 0645** | AR-BM | 312.33 | 312.33 | 312.51 | 312.51 | 360 |

*** Single Flask Values Only.**

**** GMT.**

TABLE 17: MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT VARIOUS ALASKAN LOCATIONS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------|------------|--------------|-------------|-------------|------------------|-------------|-------------------|
| Flask No. | Flask Size | Date Exposed | Time L.S.T. | Conc. (ppm) | Avg. Conc. (ppm) | Range (ppm) | Sampling Location |
| 1962 | | | | | | | |
| 134 | 1.8 l. | Apr. 15 | 1315 | 319.13* | 319.13* | --- | Umiat |
| 23 | 1.8 l. | July 1 | 0830 | 318.14 | | | Umiat |
| 24 | 1.8 l. | July 1 | 0830 | 318.03 | 318.08 | 0.11 | Umiat |
| 51 | 1.8 l. | Aug. 1 | 1600 | 302.88 | | | Umiat |
| 52 | 1.8 l. | Aug. 1 | 1600 | 302.50 | 302.69 | 0.38 | Umiat |
| 187 | 5.0 l. | Sept. 1 | 1210 | 307.95* | 307.95* | --- | Umiat |
| 243 | 1.8 l. | Sept. 16 | 1510 | 312.61 | | | Umiat |
| 244 | 1.8 l. | Sept. 16 | 1510 | 312.86 | 312.73 | 0.25 | Umiat |
| 190 | 1.8 l. | Dec. 31 | 0830 | 316.27* | 316.27* | --- | Umiat |
| 133 | 1.8 l. | Apr. 15 | 1415 | 319.69* | 319.69* | --- | Anaktuvuk |
| 23 | 1.8 l. | July 1 | 0900 | 311.94 | | | Anaktuvuk |
| 24 | 1.8 l. | July 1 | 0900 | 311.94 | 311.94 | 0.00 | Anaktuvuk |
| 99 | 1.8 l. | Aug. 1 | 1830 | | | | |
| 100 | 1.8 l. | Aug. 1 | 1830 | | | | |
| 181 | 5.0 l. | Aug. 15 | 2045 | 318.14* | 318.14* | --- | Anaktuvuk |
| 185 | 5.0 l. | Sept. 1 | 1330 | 307.33 | | | Anaktuvuk |
| 193 | 5.0 l. | Sept. 1 | 1330 | 307.95 | 307.64 | 0.62 | Anaktuvuk |
| 241 | 1.8 l. | Sept. 16 | 1630 | 314.50 | | | Anaktuvuk |
| 242 | 1.8 l. | Sept. 16 | 1630 | 314.87 | 314.68 | 0.37 | Anaktuvuk |

TABLE 17: MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT VARIOUS ALASKAN LOCATIONS
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------|------------|--------------|-------------|-------------|------------------|-------------|-------------------|
| Flask No. | Flask Size | Date Exposed | Time L.S.T. | Conc. (ppm) | Avg. Conc. (ppm) | Range (ppm) | Sampling Location |
| 1962 | | | | | | | |
| 185 | 1.8 l. | Oct. 15 | 1400 | 318.49 | 318.49 | 0.00 | Anaktuvuk |
| 186 | 1.8 l. | Oct. 15 | 1400 | 318.49 | | | Anaktuvuk |
| 191 | 1.8 l. | Dec. 31 | 0925 | 316.40 | | | Anaktuvuk |
| 192 | 1.8 l. | Dec. 31 | 0925 | 316.90 | 316.65 | 0.50 | Anaktuvuk |
| 136 | 1.8 l. | Apr. 15 | 1510 | 320.81* | 320.81* | ----- | Bettles |
| 85 | 1.8 l. | July 1 | 1030 | 310.89 | | | Bettles |
| 86 | 1.8 l. | July 1 | 1030 | 311.58 | 311.23 | 0.69 | Bettles |
| 9 | 1.8 l. | Aug. 1 | 2100 | 315.65 | | | Bettles |
| 10 | 1.8 l. | Aug. 1 | 2100 | 315.09 | 315.37 | 0.56 | Bettles |
| 86 | 5.0 l. | Aug. 15 | 2005 | 309.22 | | | Bettles |
| 189 | 5.0 l. | Aug. 15 | 2005 | 307.71 | 308.46 | 1.51 | Bettles |
| 184 | 5.0 l. | Sept. 1 | 1500 | 305.70 | | | Bettles |
| 188 | 5.0 l. | Sept. 1 | 1500 | 305.70 | 305.70 | 0.00 | Bettles |
| 228 | 1.8 l. | Dec. 31 | 1045 | 317.52 | | | Bettles |
| 227 | 1.5 l. | Dec. 31 | 1110 | 317.52 | 317.52 | 0.00 | Bettles |

* Single Flask Values Only.

TABLE 18: MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES AT VARIOUS HEIGHTS OVER BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------|-----------|------------|--------------|-------------|--------------|-------------|-----------------|-------------|-------------------|
| | Flask No. | Flask Size | Date Exposed | Time L.S.T. | Altitude (m) | Conc. (ppm) | Avg Conc. (ppm) | Range (ppm) | Sampling Location |
| | | | | | | | | | |
| | | | 1962 | | | | | | |
| | 222 | 1.8 l. | Dec. 28 | 2220 | 4572 | 316.52 | 317.33 | 1.62 | Barrow |
| | 221 | 1.8 l. | Dec. 28 | 2305 | 4572 | 318.14 | 316.90* | ---- | Barrow |
| | 223 | 1.8 l. | Dec. 28 | 2335 | 2438 | 316.90* | 316.90* | ---- | Barrow |
| | 226 | 1.8 l. | Dec. 29 | 0020 | 610 | 317.52 | 318.01 | 0.98 | Barrow |
| | 225 | 1.8 l. | Dec. 29 | 0040 | 610 | 318.50 | 316.29* | ---- | Barrow |
| | 190 | 1.8 l. | Dec. 31 | 0830 | 610 | 316.29* | 316.29* | ---- | Barrow |
| | 191 | 1.8 l. | Dec. 31 | 0925 | 1525 | 316.41 | 316.66 | 0.50 | Barrow |
| | 192 | 1.8 l. | Dec. 31 | 0945 | 1525 | 316.91 | 317.53 | 0.00 | Barrow |
| | 227 | 1.8 l. | Dec. 31 | 1045 | 3050 | 317.53 | 317.53 | 0.00 | Barrow |
| | 228 | 1.8 l. | Dec. 31 | 1110 | 3050 | 317.53 | 317.53 | 0.00 | Barrow |
| | | | 1963 | | | | | | |
| | 50 | 1.8 l. | Feb. 3 | ---- | 3355 | 316.82* | 316.82* | ---- | Barrow |
| | 49 | 1.8 l. | Mar. 2 | ---- | 1250 | 321.19* | 321.19* | ---- | Barrow |
| | 71 | 1.8 l. | June 27 | 1725 | 3050 | 317.09 | 316.81 | 0.56 | Barrow |
| | 22 | 1.8 l. | June 27 | 1732 | 3050 | 316.53 | 316.81 | 0.56 | Barrow |
| | 83 | 1.8 l. | June 11 | 0944 | 1525 | 321.60 | 321.49 | 0.22 | Barrow |
| | 84 | 1.8 l. | June 11 | 0950 | 1525 | 321.38 | 321.49 | 0.22 | Barrow |
| | 106 | 1.8 l. | June 11 | 1024 | 3050 | 321.53* | 321.53* | ---- | Barrow |

* Single Flask Values Only.

TABLE 19: MANOMETRIC CONCENTRATIONS OF FLASK SAMPLES TAKEN ON THE NATCHIK CRUISE - 1962
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-----------|------------|--------------|-------------|-------------|------------------|-------------|----------------------|
| | Flask No. | Flask Size | Date Exposed | Time L.S.T. | Conc. (ppm) | Avg. Conc. (ppm) | Range (ppm) | Sampling Location |
| | | | 1962 | | | | | |
| | 171 | 1.8 l. | Aug. 17 | 2330 | 308.95 | | | Barrow |
| | 172 | 1.8 l. | Aug. 17 | 2330 | 308.71 | 308.83 | 0.24 | Barrow |
| | 175 | 1.8 l. | Aug. 31 | 2030 | 314.63 | | | Wainwright |
| | 176 | 1.8 l. | Aug. 31 | 2030 | 315.01 | 314.82 | 0.38 | Wainwright |
| | 180 | 1.8 l. | Sept. 1 | 1730 | 308.33* | 308.33* | -- | Point Cuy |
| | 67 | 1.8 l. | Sept. 7 | 1630 | 310.34 | | | Cape Thompson |
| | 68 | 1.8 l. | Sept. 7 | 1630 | 310.22 | 310.28 | 0.12 | Cape Thompson |
| | 71 | 1.8 l. | Sept. 8 | 1930 | 310.10 | | | Little Dioned, Isla |
| | 72 | 1.8 l. | Sept. 8 | 1930 | 309.72 | 309.91 | 0.38 | Little Dioned, Isla |
| | 63 | 1.8 l. | Sept. 9 | 0830 | 309.08 | | | Cape Prince of Wales |
| | 84 | 1.8 l. | Sept. 9 | 0830 | 308.83 | 308.95 | 0.25 | Cape Prince of Wales |
| | 163 | 1.8 l. | Sept. 10 | 1000 | 308.20 | | | Cape Douglas |
| | 164 | 1.8 l. | Sept. 10 | 1000 | 308.20 | 308.20 | 0.00 | Cape Douglas |
| | 157 | 1.8 l. | Sept. 12 | 1000 | 308.57 | | | Cape Nome |
| | 158 | 1.8 l. | Sept. 12 | 1000 | 308.71 | 308.64 | 0.14 | Cape Nome |

* Single Flask Values Only

**TABLE 20: INDICES AND MANOMETRIC CONCENTRATIONS OF AIR WITH CONTINUOUS ANALYZER
FOR TIMES OF FLASK SAMPLING
BARROW, ALASKA CARBON DIOXIDE PROJECT**

| Col: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|------|--------------|---------------------|----------------|------------------------------|----------------------|-----------------------|----------------------|--------------------|--------|-----------|------------------------|
| | Day of Month | Local Standard Time | Obs. Sc. Diff. | Barometric Pressure (inches) | Adjusted Scale Diff. | Recorder Scale Factor | Computed Index Diff. | Reference Tank No. | Index | Air Index | Manometric Conc. (ppm) |
| 1961 | | | | | | | | | | | |
| | Sept. 15 | 1030 | -1.15 | 29.66 | -1.16 | 2.63 | -3.07 | 10069 | 312.30 | 309.23 | 309.73 |
| | Oct. 16 | 1600 | 6.07 | 29.57 | 6.13 | 1.43 | 8.77 | 3755 | 304.51 | 313.28 | 313.67 |
| | Dec. 12 | 1415 | 12.83 | 29.93 | 12.86 | 1.48 | 18.78 | 3756 | 297.26 | 316.04 | 317.03 |
| 1962 | | | | | | | | | | | |
| | Jan. 15 | 1545 | -0.73 | 30.19 | -0.72 | 2.51 | -1.81 | 10071 | 319.17 | 317.36 | 318.64 |
| | Feb. 1 | 1530 | -0.65 | 29.75 | -0.65 | 2.51 | -1.63 | 10071 | | 317.54 | 318.85 |
| | Feb. 15 | 1530 | -0.28 | 30.40 | -0.28 | 2.51 | -0.70 | 10071 | | 318.47 | 319.99 |
| | Mar. 1 | 1445 | 7.47 | 30.07 | 7.45 | 2.51 | 18.70 | 10073 | 298.99 | 317.69 | 319.04 |
| | Mar. 15 | 1845 | 7.47 | 30.63 | 7.30 | 2.51 | 18.32 | 10073 | | 317.31 | 318.50 |
| | Apr. 2 | 1550 | 3.48 | 30.37 | 3.43 | 2.51 | 8.61 | 10068 | 309.02 | 317.63 | 313.97 |
| | May 1 | 1550 | 6.45 | 30.22 | 6.40 | 2.51 | 16.06 | 6078 | 303.09 | 319.15 | 320.82 |
| | May 15 | 1500 | 6.17 | 29.51 | 6.27 | 2.51 | 15.74 | 6078 | | 318.83 | 320.43 |
| | June 1 | 1520 | 6.32 | 29.85 | 6.35 | 2.51 | 15.94 | 6078 | | 319.03 | 320.67 |
| | June 15 | 1445 | 7.50 | 29.97 | 7.51 | 2.51 | 18.85 | 3757 | 298.98 | 317.83 | 319.21 |
| | July 1 | 1355 | 5.87 | 29.83 | 5.90 | 2.51 | 14.81 | 3757 | | 313.79 | 314.23 |
| | July 15 | 1340 | 6.18 | 30.03 | 6.18 | 2.51 | 15.51 | 2427 | 297.61 | 313.12 | 313.47 |

TABLE 20: INDICES AND MANOMETRIC CONCENTRATIONS OF AIR WITH CONTINUOUS ANALYZER
FOR TIMES OF FLASK SAMPLING

BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|---------------------|----------------|------------------------------|----------------------|-----------------------|----------------------|--------------------|----------------------|-----------|------------------------|
| Day of Month | Local Standard Time | Obs. Sc. Diff. | Barometric Pressure (inches) | Adjusted Scale Diff. | Recorder Scale Factor | Computed Index Diff. | Reference Tank No. | Reference Tank Index | Air Index | Manometric Conc. (ppm) |
| <u>1962</u> | | | | | | | | | | |
| Aug. 1 | 1300 | 4.74 | 29.82 | 4.79 | 2.51 | 12.02 | 2427 | 297.61 | 309.63 | 309.22 |
| Sept. 1 | 0900 | -0.97 | 30.11 | -0.97 | 2.51 | -2.43 | 3756 | 310.10 | 307.67 | 306.83 |
| Oct. 15 | 1415 | 0.32 | 29.60 | 0.32 | 2.51 | 0.80 | 2400 | 310.99 | 311.79 | 311.85 |
| Nov. 1 | 1500 | 5.68 | 30.19 | 5.64 | 2.51 | 14.16 | 10071 | 301.56 | 315.72 | 316.64 |
| Nov. 15 | 1300 | 5.83 | 30.23 | 5.78 | 2.49 | 14.39 | 10071 | | 315.95 | 315.92 |
| Dec. 15 | 1100 | 0.82 | 29.97 | 0.82 | 2.45 | 2.09 | 10072 | 314.85 | 316.94 | 318.11 |
| <u>1963</u> | | | | | | | | | | |
| Jan. 1 | 2230 | 1.27 | 30.17 | 1.26 | 2.43 | 3.06 | 10072 | 314.85 | 317.91 | 319.31 |
| Feb. 1 | 1200 | 2.30 | 30.65 | 2.25 | 2.43 | 5.47 | 10072 | | 320.32 | 322.25 |
| Feb. 15 | 1300 | 1.75 | 30.59 | 1.71 | 2.43 | 4.16 | 10072 | | 319.01 | 320.55 |
| Mar. 1 | 0900 | 1.32 | 29.95 | 1.32 | 2.43 | 3.21 | 4286 | 314.48 | 317.69 | 319.04 |
| Mar. 15 | 1500 | 2.26 | 30.15 | 2.25 | 2.43 | 5.47 | 4286 | | 319.95 | 321.79 |
| May 2 | 1500 | 1.37 | 30.24 | 1.36 | 2.43 | 3.30 | 7362 | 315.56 | 318.86 | 320.47 |
| June 1 | 2000 | -1.49 | 29.69 | -1.51 | 2.43 | -3.67 | 4284 | 321.91 | 318.24 | 319.71 |
| July 1 | 1500 | 1.22 | 29.68 | 1.23 | 2.43 | 2.99 | 3757 | 312.30 | 315.29 | 316.12 |
| July 15 | 1200 | 1.63 | 29.77 | 1.65 | 2.43 | 4.01 | 4272 | 312.28 | 316.29 | 317.33 |
| Aug. 1 | 1200 | -1.50 | 29.57 | -1.51 | 2.43 | -3.67 | 18204 | 314.49 | 310.82 | 310.67 |
| Aug. 1 | 1300 | -1.20 | 29.56 | -1.21 | 2.43 | -2.94 | 18204 | | 311.55 | 311.56 |

TABLE 21: COMPARISON OF CONTINUOUS ANALYZER AND FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | 2 | 3 | 4 | 5 |
|-------------|----------------|--|----------|--------------------|
| Date | Time L.S.T. | CO ₂ Concentration (ppm) | | Departure (ppm) |
| | | Flask | Analyzer | |
| <u>1961</u> | | | | |
| Sept. 15 | 1030 | 308.70 | 308.73 | 0.03 |
| | | 308.85 | | -0.12 |
| Oct. 16 | 1600 | 313.61 | 313.67 | 0.06 |
| | | 313.50 | | 0.17 |
| Dec. 12 | 1415 | 317.60 | 317.03 | -0.57 |
| <u>1962</u> | | | | |
| Jan. 15 | 1545 | 318.71 | 318.64 | -0.07 |
| | | 318.60 | | 0.04 |
| Feb. 1 | 1530 | 319.35 | 318.86 | -0.49 |
| | | 319.39 | | -0.53 |
| Feb. 15 | 1530 | 320.50 | 319.99 | -0.51 |
| | | 320.27 | | -0.28 |
| Mar. 1 | 1445 | 318.89 | 319.04 | 0.15 |
| | | 319.13 | | -0.09 |
| Mar. 15 | 1845 | 318.55 | 318.58 | 0.03 |
| | | 318.55 | | 0.03 |
| Apr. 2 | 1550 | 318.42 | 318.97 | 0.55 |
| | | 318.65 | | 0.32 |
| Apr. 15 | 1430 | 319.46 | 320.82 | 1.36 |
| | | 319.46 | | 1.36 |
| May 1 | 1550 | 320.81 | 320.43 | -0.38 |
| | | 320.81 | | -0.38 |

TABLE 21: COMPARISON OF CONTINUOUS ANALYZER AND FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | | 2 | 3 | 4 | 5 |
|-------------|----------------|--|----------|--------------------|---|
| Date | Time L.S.T. | CO ₂ Concentration (ppm) | | Departure (ppm) | |
| | | Flask | Analyzer | | |
| <u>1962</u> | | | | | |
| June 1 | 1520 | 320.36 | 320.67 | 0.31 | |
| | | 320.55 | | 0.12 | |
| June 15 | 1445 | 319.91 | 319.21 | -0.70 | |
| | | 319.91 | | -0.70 | |
| July 1 | 1355 | 315.08 | 314.29 | -0.79 | |
| | | 315.21 | | -0.92 | |
| July 15 | 1340 | 313.57 | 313.47 | -0.10 | |
| | | 313.31 | | 0.16 | |
| Aug. 1 | 1300 | 310.05 | 309.22 | -0.83 | |
| | | 310.05 | | -0.83 | |
| Sept. 1 | 0900 | 307.54 | 306.83 | -0.68 | |
| | | 307.66 | | -0.83 | |
| Oct. 15 | 1415 | 312.90 | 311.85 | -1.05 | |
| | | 312.67 | | -0.82 | |
| Nov. 1 | 1500 | 317.01 | 316.64 | -0.37 | |
| | | 317.01 | | -0.37 | |
| Nov. 15 | 1300 | 317.46 | 316.92 | -0.54 | |
| | | 317.57 | | -0.65 | |
| Dec. 15 | 1100 | 318.25 | 318.13 | -0.12 | |
| | | 318.14 | | -0.01 | |

TABLE 21: COMPARISON OF CONTINUOUS ANALYZER AND FLASK SAMPLES AT BARROW, ALASKA
BARROW, ALASKA CARBON DIOXIDE PROJECT

| Col: 1 | | 2 | 3 | | 4 | 5 |
|-------------|----------------|--|----------|--------------------|---|---|
| Date | Time L.S.T. | CO ₂ Concentration (ppm) | | Departure (ppm) | | |
| | | Flask | Analyzer | | | |
| <u>1963</u> | | | | | | |
| Jan. 1 | 2230 | 319.35 | 319.31 | -0.04 | | |
| | | 319.46 | | -0.15 | | |
| Feb. 1 | 1200 | 323.00 | 322.25 | -0.75 | | |
| | | 323.14 | | -0.89 | | |
| Feb. 15 | 1300 | 321.94 | 320.65 | -1.29 | | |
| | | 321.94 | | -1.29 | | |
| Mar. 1 | 0900 | 321.28 | 319.04 | -2.24 | | |
| | | 321.42 | | -2.38 | | |
| Mar. 15 | 1500 | 322.75 | 321.79 | -0.96 | | |
| | | 322.61 | | -0.82 | | |
| May 2 | 1500 | 321.95 | 320.47 | -1.48 | | |
| | | 322.18 | | -1.71 | | |
| June 1 | 2000 | 321.83 | 319.71 | -2.12 | | |
| | | 321.59 | | -1.88 | | |
| July 1 | 1600 | 317.59 | 316.12 | -1.47 | | |
| | | 317.36 | | -1.24 | | |
| July 15 | 1200 | 317.77 | 317.33 | -0.44 | | |
| Aug. 1 | 1200 | 313.22 | 310.67 | -2.55 | | |
| | | 312.74 | | -2.07 | | |
| Aug. 16 | 1300 | 311.67 | 311.56 | -0.11 | | |
| | | 311.30 | | 0.26 | | |